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CITY OF SUNNYVALE CALIFORNIA

WITH AMENDMENTS THROUGH AUGUST 5, 1975







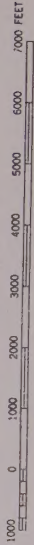
# GENERAL PLAN SUNNYVALE CALIFORNIA

- LOW DENSITY RESIDENCE  
(1 - 6 DU's/Gross Acre)
- MEDIUM DENSITY RESIDENCE  
(7 - 14 DU's/Gross Acre)
- HIGH DENSITY RESIDENCE  
(15 - 29 DU's/Gross Acre)
- PARKS


- SCHOOLS  
Elementary  
Intermediate  
High

- CENTRAL BUSINESS DISTRICT
- GENERAL BUSINESS
- NEIGHBORHOOD SHOPPING
- OFFICES
- INDUSTRY
- BAYLANDS
- NAVAL AIR STATION

- FREEMWAYS
- EXPRESSWAY
- 6 LANE MAJOR ARTERIAL
- 4 LANE MAJOR ARTERIAL
- COLLECTOR
- PLANNING AREA BOUNDARY







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1  
1972 GENERAL PLAN  
of the  
CITY OF SUNNYVALE

Sunnyvale, California

Sunnyvale. [Dept of community  
development]

City pl. Sunnyvale

This certifies that this document constitutes the 1972 General Plan  
of the City of Sunnyvale, as adopted by Resolution No. 204-72 of  
the City Council.

Dated: May 25, 1972

Etta S. Albert  
Mayor

ATTEST:

[Signature]  
City Clerk



SUNNYVALE CITY COUNCIL

Mayor - Etta S. Albert

Charley C. Allen	Donald E. Koreski
Gilbert R. Gunn	Donald S. Logan
Charles H. Hefferlin	Harold C. Shields

CITY PLANNING COMMISSION

Harold H. Cude	Charles Kelley, Jr.
Gene Fink	John E. Kelsey
Robert B. Flohr	John T. Packard
Thomas W. Powers	

ADMINISTRATIVE STAFF

CITY MANAGER	John E. Dever
ASSISTANT CITY MANAGER	William T. Hopkins
DIRECTOR OF FINANCE	Carl V. Husby, Jr.
DIRECTOR OF GENERAL SERVICES	John A. Gordon
DIRECTOR OF LIBRARIES	Philip Morales
DIRECTOR OF PARKS & RECREATION	John G. Williams
DIRECTOR OF PUBLIC SAFETY	George K. Hansen
DIRECTOR OF PUBLIC WORKS	Donald M. Somers
DIRECTOR OF COMMUNITY DEVELOPMENT	Gordon R. Miller
Building Inspection Superintendent	John Hopkins
Planning Officer	Edward C. Moore
Planning Staff	David A. Gates
	Kaye J. Won





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## OBJECTIVES

On October 8, 1957, a General Plan was adopted for the City of Sunnyvale. The 1957 General Plan, which guided the physical development of the City of Sunnyvale and was refined through approval of Land Use and Density Plans, is supplanted and replaced by the General Plan dated 1963.

The General Plan dated 1963 is directed towards achievement of the following goals:

1. The establishment of Sunnyvale as a regional industrial center.
2. A well-developed and cohesive central business district.
3. Diversified and pleasant residential areas, with parks and playgrounds, and other needed facilities.
4. Convenient, safe and adequate facilities for movement of people and goods.
5. Aesthetic continuity within each residential, commercial and industrial area.

To meet changing conditions in Sunnyvale and the San Francisco Bay Area, a General Plan should be reviewed from time to time. To effectuate the General Plan, policies and programs should reflect the concept of the Plan and complement growth which has occurred to date.

The General Plan dated 1963 is adopted pursuant to the powers of the City of Sunnyvale as a charter city as provided in Article IV of the Sunnyvale City Charter and as authorized by Section 6 of Article XI of the Constitution of the State of California.

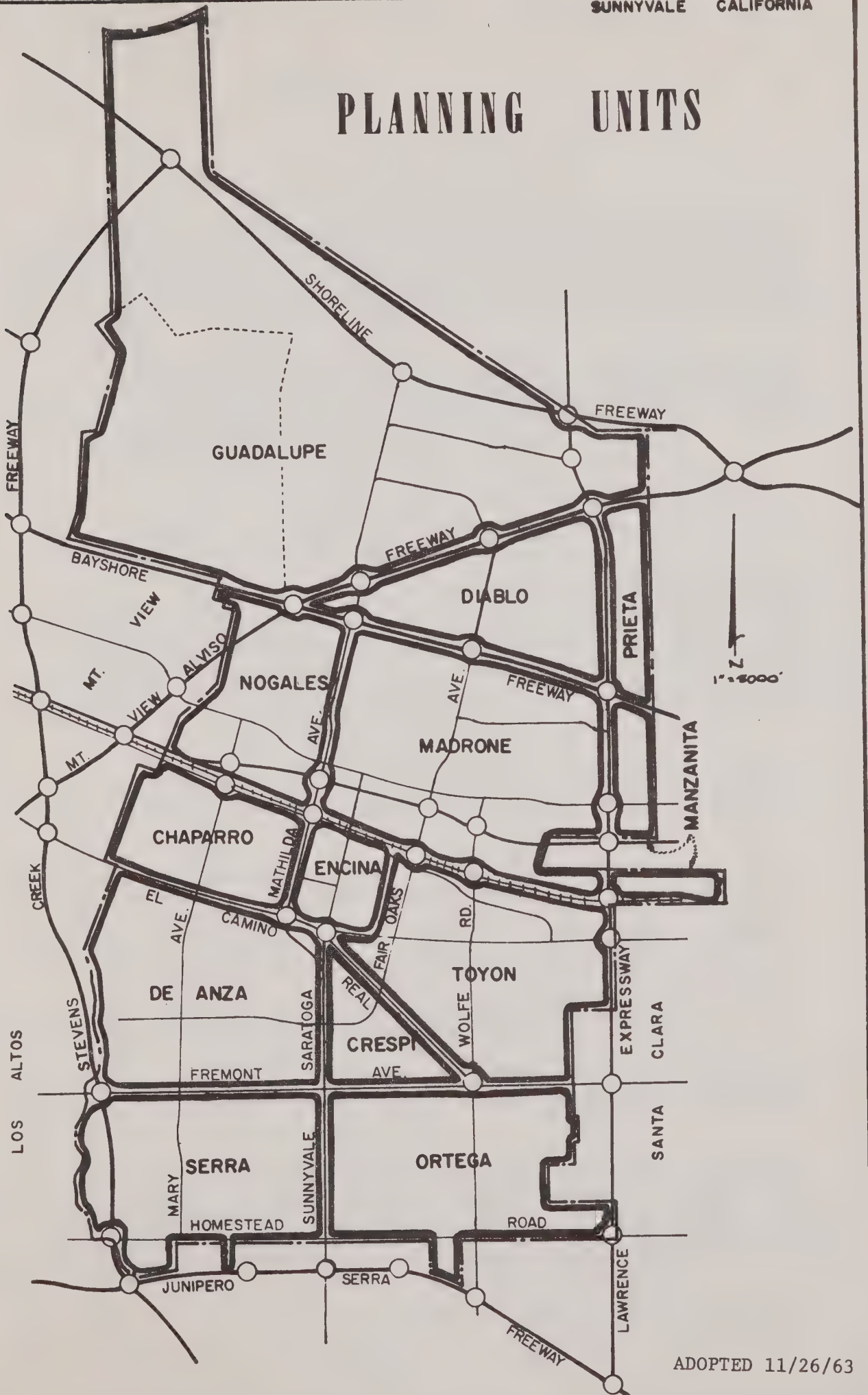
Whenever the term "General Plan" is used herein, it shall have the same meaning as the term "Master Plan" appearing in Section 1010 of the City Charter and in the Uniform Planning and Zoning Code of the City of Sunnyvale.







# PLANNING UNITS



ADOPTED 11/26/63

10/63 AK





## LAND USE

The amounts of land allocated to particular uses in a general plan reflect the type of city which is projected for the future. The policies or principles and standards provide the guide by which individual decisions may be formulated. The General Plan for the City of Sunnyvale contemplates and provides for the following policies and standards.

The General Plan Map is not a precise plan allocating uses to specific properties but rather in relation to neighborhoods and major geographic or man-made features. It is therefore a diagram illustrative of the application of the land use allocations, and the principles and standards adopted and set forth.

### Residential Densities

A gross residential density is defined as the number of dwelling units per acre including streets but not business or community facilities.

Most of the first homes constructed in Sunnyvale were built on narrow and deep lots. Some building lots were 40 feet wide; most of them were 50 feet wide. The 1957 General Plan proposed the development of large, single-family lots; multiple development was to be limited. Between 1957 and 1963, however, as land became more expensive, demand for multiple units increased and provision for a greater amount of such development was approved in land use and density study plans and in the General Plan adopted in 1963.

The current updating of the Land Use Element shows only minor departures from the 1963 residential allocation, reflecting policy changes made in the intervening years. Those worthy of note are:

1. A northward shift of the boundary between residential and industrial development from Reed Avenue toward the Southern Pacific right-of-way.
2. The elimination of the high density residential allocation along El Camino Real and its replacement by general business.
3. The reduction in intensity of residential development from high to medium along Sunnyvale-Saratoga Road, south of Fremont Avenue.
4. The reduction in intensity of residential development from high to medium and low south of El Camino Real in the vicinity of our boundary with the City of Santa Clara.

The revised Land Use Element now proposes that 75.0 per cent of the residential acreage be low density and 25.0 per cent be in high density. The new holding capacity will be approximately 152,400 people or 52,604 families. Multiple family units are planned around the central business district, along major thoroughfares, and between single-family residential areas and non-residential uses.





## Commercial Areas

Commercial development should emphasize attractive and stimulating surroundings, convenience and accessibility and adequate facilities for parking and loading.

Neighborhood shopping centers exist or are planned throughout the City in sufficient quantity to serve ultimate needs. Typical neighborhood centers are often surrounded by high density residential development. Here, as in other commercial areas, landscaping standards should be maintained to set off the buildings and relieve the expanse of parking.

Isolated retail establishments of less than neighborhood shopping center size are discouraged and are not indicated in the Land Use Element as mapped. In certain circumstances such small facilities can be justified as an accessory or supporting facility as part of a larger development.

The fact that existing centers are not mapped does not suggest that their present commercial zoning should be removed, placing them in a non-conforming category.

Highway business to be encouraged on El Camino Real would be motels and restaurants, motor sales and maintenance, commercial recreation, and business and professional offices in addition to comparison shopping facilities. In order to make both residential and commercial development attractive, the existing trend towards scatteration must be controlled; commercial nuclei should have a minimum of ten acres; apartment areas should have a minimum of five acres except where a street has characteristics similar to Highway Business.

In industrial areas, retail commercial should be limited to types serving nearby industrial users or the daytime population of the area. Such retail services might include restaurants, drug stores, barber shops, banks, gasoline service stations, repair garages, offices, wholesale uses and commercial recreation. Certain streets, such as Mathilda Avenue, which has characteristics similar to a Highway Commercial District, can be expected to have a broader range of commercial uses.

The Central Business District, hub of comparison shopping, offices, banks and services, should be kept concentrated in size. Buildings should be grouped at the core and surrounded by landscaped parking areas. Easy access by car should be provided by means of a loop of major streets, carrying traffic to and around the Central Business District.

The development of offices should be encouraged on the west side of Mathilda between the railroad and the Civic Center and on the east side between Iowa Avenue and El Camino Real for the reason that there is reciprocal upgrading by proximity of offices, the Civic Center and the Central Business District. In addition, offices act as a good buffer between commercial and residential.

## Industrial Areas

A basic policy of the Plan is the reservation of sufficient, well-located land, served by utilities and roads, protected by zoning and building regulations, to allow a maximum variety of sites for industrial location and expansion. Designation of future areas for industry does not hamper existing agricultural uses, but does prevent the intrusion of residential development. Buffer areas should be provided between industrial and non-compatible uses such as residential. Site planning should





provide landscaping for buildings and parking areas. There should be ample off-street parking and loading. Nuisances, such as odor and noise, are controlled by zoning. The Plan provides approximately 4076 gross acres for industrial uses.

Proposed industrial areas are generally in the northern part of the City where land is level, drainage excellent and subsoil conditions are firm and deep. There are several railroad spur lines serving existing industrial sites and these can be extended to serve new industry. Large capacity major streets, expressways and freeways will serve the needs of all vehicular traffic.

### Baylands

The Baylands extending north from the Baylands Park, consisting of approximately 2265 acres and presently largely devoted to salt ponds and marshes, are reserved for low intensity conservation oriented uses and the possible expansion of public recreation facilities.

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### Community Facilities

Community facilities consist of a combination of public and semi-public uses -- schools, playgrounds, parks, governmental buildings, churches, clinics, hospitals and other institutional uses.

Neighborhood and district parks should be located adjacent to schools and on combined sites wherever possible. Neighborhood centers should provide both indoor and outdoor facilities. School buildings should be utilized as much as possible for recreation and civic affairs. Neighborhood parks of four to seven acres adjacent to elementary schools should be oriented towards young children and family groups. District parks of 10 or more acres adjoining intermediate schools and high schools should be oriented towards teenagers and adults. Whenever possible, a park site should be provided within each inhabited square mile area.

City-wide facilities of 100 acres or more should be located to take advantage of sites of natural beauty and to provide types of recreation not found in other parks, such as golf courses and camping sites. Land for park and recreational facilities should be acquired well in advance in any area under development, even though the facility may not be immediately developed. The tower easements should be developed as landscaped walkways and the water-line right-of-way should be developed as landscaped walkways and recreation areas. Recognition and encouragement should be given to the trend for provision of private recreation facilities, swimming pools, play areas and tennis courts in low, medium and high density residential areas supplementing public facilities.

To conserve water, maintain flood control, preserve floral and animal life and provide recreational facilities, a coordinated system of regional parks should be developed and maintained.

#### Schools: Size and Location

Elementary School: A minimum site of 5 acres plus an additional acre for each 100 pupils of predicted ultimate maximum enrollment. When a neighborhood park is planned with an elementary school, the combination should be at least 15 acres.





Junior High: A minimum site of 15 acres plus an additional acre for each 100 pupils of predicted ultimate maximum enrollment.

Senior High: A minimum site of 30 acres plus an additional acre for each 100 pupils of predicted ultimate maximum enrollment.

Each elementary school should be located within a reasonable walking distance of each pupil served. No child should have to cross a major street. Intermediate schools should be within a radius of approximately one mile and high schools should be within approximately two miles of each pupil served.





## HOUSING

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### I. PREAMBLE

Housing, whether single family or multiple, owner or tenant occupied, constitutes a large component of the City's present and proposed land use plan. Housing also demands a major share, not only of the budget of the individual occupant, but also his effort, care and concern. It is a major capital investment, and a continuing cost for operation and upkeep. Home is the center of family life, and therefore the foundation of citizenship.

A house is both durable and fragile. With care it can last for generations so that its original location and construction constitute long term decisions. However with neglect or abuse it can deteriorate beyond economic repair with astonishing rapidity. A modern house is a complex assembly, much of whose internal structure and mechanical adequacy is concealed underground or behind walls. Accordingly, the citizen must depend on the ability of the builder and the vigilance of the City for assurance of code conformance.

A house by itself does not constitute a home. The environment is part of the home, just as the house becomes part of the environment, so that the relation of house to house and house to surroundings is important.

Housing through the needs of its occupants generates a major demand for municipal protection and service, as well as for schools. Most local travel is to or from home so that housing is a major factor in highway planning. At the same time, housing, through the real property tax and through other taxes paid by its occupants, contributes a major part of local municipal, school district and county tax revenues. The construction, marketing and equipping of housing in any community constitutes an important element of the economy -- particularly so in an area and period of rapid growth.

Accordingly, the quantity, quality, type and distribution of housing is of major importance for the well being of Sunnyvale's citizens for the stability of its neighborhoods, for the fiscal soundness of its government and the economic health of the entire community.





Sunnyvale is, of course, not an isolated or self contained community. In the field of housing particularly, its place in the larger regional and sub-regional market must be borne in mind. In recognition of this need, the City staff, as well as elected and appointed officials, have participated both in joint City-County and regional housing element studies. The need for continued interjurisdictional cooperation is of major importance.

Local governments bear only part of the responsibility for housing programs. The programs of the Federal Government have a profound effect, particularly in the area of financing, and since these are subject to change, the City must retain flexibility in its plans so that it may make most advantageous use of new opportunities.

## II. GOALS

1. To insure the provision of decent housing for all residents regardless of age, income, race, or ethnic background.
2. To stimulate housing construction adequate for planned future growth as well as for replacement needs.
3. To insure the provision of a variety of individual choice of tenure, housing type, size, and location.
4. To assure order, amenity and beauty in every neighborhood of the City. Where these are lacking they should be created. Where they have been lost, they should be restored. Where they now exist, they should be preserved and enhanced.
5. To eliminate housing deficiencies and prevent future blight through conservation, construction, rehabilitation or replacement.

## III. SUNNYVALE'S HOUSING NEEDS, CURRENT AND FUTURE

Estimates of Sunnyvale's housing needs are based on the results of the 1969 household survey conducted under the recently completed Community Renewal Program study.

The estimate of the need for low and moderate income housing was derived by determining, from data from the household survey, those households who appear to be eligible for housing assistance on the basis of income, size of household, and the per cent of income spent on housing payments.



The results are presented in Table I and show that approximately 4,000 households in the City of Sunnyvale appear to be eligible to receive housing assistance under one of the current Federal low and moderate income housing programs. Of the total, approximately 2,525 would qualify for low income housing assistance and another 1,405 would qualify for moderate income housing assistance. Approximately 2,200 of these households are paying on the order of 35 to 45 per cent of their incomes for rent.

Table I

ESTIMATED NUMBER OF HOUSEHOLDS ELIGIBLE TO RECEIVE  
LOW AND MODERATE INCOME HOUSING ASSISTANCE

<u>Size of Household</u>	<u>Low Income Limits</u>	<u>Number of Households</u>	<u>Moderate Income Limits</u>	<u>Number of Households</u>	<u>Total</u>
1	\$3,750	781	\$ 5,329	427	1,208
2	4,250	797	6,040	320	1,117
3	4,750	452	7,066	255	707
4	5,250	269	8,093	253	522
5	5,750	88	9,119	45	133
6	6,250	74	10,145	29	103
7	6,750	53	11,172	11	64
8	7,250	13	12,198	64	77
Total Eligible		2,527		1,404	3,931

While these figures are a general indicator of housing needs, it does not mean that all of these households will or should receive some form of housing assistance. Experience in other communities indicates that anywhere from 30 to 50 per cent of those appearing to be eligible actually meet the requirements or will accept housing assistance. The following range of need was derived by applying the 30 to 50 per cent acceptance rate to those appearing eligible.





Table II

ESTIMATES OF THE NEED FOR LOW AND  
MODERATE INCOME HOUSING UNITS

Size of Family	Low Income		Moderate Income		Total	
	Low Estimate	High Estimate	Low Estimate	High Estimate	Low Estimate	High Estimate
1	209	350	117	195	326	545
2	196	326	80	132	276	458
3	124	207	70	116	194	323
4	79	132	66	110	145	242
5+	<u>53</u>	<u>87</u>	<u>37</u>	<u>62</u>	<u>90</u>	<u>149</u>
	661	1,102	370	615	1,031	1,717

Future Housing NeedsEmployment

Employment growth is expected to continue in Sunnyvale at a fairly rapid pace as well as throughout Santa Clara County. The number of jobs in Sunnyvale is projected to increase from 40,336 in 1965 to 75,000 in 1980 and 99,900 in 1990.

Households

Growth of housing within Sunnyvale and its planning area cannot keep pace with anticipated employment. Undeveloped land planned for and suitable for housing has been largely used up. Developed land planned for eventual reconstruction at higher intensity is limited, and presently occupied by structures with sufficient quality and economic usefulness so that its conversion will require a prolonged period. Therefore it is projected that residential growth will proceed at a fairly rapid pace until all substantial tracts suitable for housing have been brought into development, after which it will be sharply retarded as housing construction is confined to small by-passed parcels and replacement.

It is expected that eventually all single family land will have been utilized by the mid 1970's with a total increase of only 1,800 units. The supply of undeveloped land for multiple family housing is greater and will accommodate approximately 8,100 families. Then as aging single units in the central areas of the City are gradually replaced, their number will be reduced by about 1,400 while approximately 6,600 multiple units are constructed.

Thus, it is clear that continued population and employment growth in the mid-peninsula area will continue to place severe pressure on the housing market in the City of Sunnyvale. As land becomes more scarce, prices will undoubtedly increase and the problems of meeting the future needs of the





low and moderate income families will become more severe.

Future Needs for Low and Moderate Income Housing

There is no precise way to translate income projections directly into future needs for low and moderate income housing. Although the number of low income families is projected to decline, this does not necessarily imply a decline in the need for publicly-assisted housing at least in the short run. Housing costs have been increasing at a faster rate than other consumer expenditures. Families in the low to moderate income groups will have increasing difficulty in finding suitable housing within their means. As long as this situation continues it is reasonable to assume that most of the families currently needing housing assistance will continue to need assistance in the future. In addition, because of the housing squeeze, an increasing portion of these families may find publicly assisted housing an acceptable alternative to traditional private housing accommodations.

Table III

PROJECTED NEED FOR LOW AND MODERATE  
INCOME HOUSING IN 1990

	<u>Low</u>	<u>High</u>
Estimated current need	1,031	1,717
Projected need 1969 to 1975	300	500
Projected need 1975 to 1990	<u>1,100</u>	<u>1,800</u>
Total projected need to 1990	2,431	4,017

It should be noted that these units would serve the needs of existing and future Sunnyvale residents.



### Recent Growth in Housing

Since 1960, 21,384 dwelling units have been constructed and 429 have been demolished for a net gain of 20,955 dwelling units, as shown in Table IV.

Table IV

#### ADDITIONS AND DELETIONS FROM HOUSING STOCK, 1960-1971

<u>Year</u>	<u>Single Family</u>	<u>Demolish</u>	<u>Apt. &amp; Duplex</u>	<u>Demolish</u>	<u>Mobile Units</u>
1960	626	0	670	0	0
1961	815	12	644	0	0
1962	1,261	72	1,254	28	0
1963	1,089	52	2,018	12	816
1964	412	71	1,659	0	0
1965	353	15	330	0	0
1966	472	33	158	0	0
1967	419	24	540	0	198
1968	684 (109)*	42	1,091	0	0
1969	420 (6)*	25	785	0	896
1970	288 (28)*	37	1,494	0	137
1971	<u>651 (446)*</u>	<u>21</u>	<u>699</u>	<u>0</u>	<u>513</u>
12 Yrs.	7,490 (589)*	383	11,334	46	2,560

\* Cluster Homes included in Single Family

This growth added to the housing stock already in existence gives a total at the end of 1971 of 18,845 single family dwellings housing an estimated population of 71,100; 11,797 multiple or duplex dwellings housing an estimated population of 26,707; and 2,560 mobile home spaces housing an estimated population of 4,250.

#### IV. IMPLEMENTATION MEASURES

The implementation measures available to the City directly or through participation in the programs of other governmental agencies range from the encouragement of voluntary actions through the provision of assistance by means of subsidy, or other incentives, the establishment and enforcement of regulations, and finally the direct achievement of the public purpose through public acquisition, construction, and operation.





In order to impinge as little as possible on individual freedom, the measures employed in a given situation and at a given time should contain as little coercion as is consistent with the actual achievement of a particular objective. At the same time it is equally important that the measures be strong enough to be effective. Accordingly, in order to gauge the appropriateness of programs employed at any moment, there must be continuing monitoring of trends, needs and progress toward their fulfillment. As a result of this monitoring, an implementing device not presently considered necessary or appropriate may be brought into play, or one which has fulfilled its objective may be discontinued or given reduced attention.

### Specific Measures

#### Affirmative Action Program

In a period of increasing housing prices, the problems of families from minority groups grow even more rapidly. First, because of the historic pattern of discrimination in employment and education with the resulting lower incomes, they are less able to compete in today's housing market. Secondly, as demand increases and vacancy rates remain low, landlords become increasingly selective in tenants. Often the first to be excluded are members of minority groups. While discrimination in housing has been illegal for some time, attitudes, behavior, and practices change slowly. To help overcome this problem, the City has established a housing officer and directed that publicity and direct information, as well as consulting services, should be provided while maintaining close liaison with the F.E.P.C., H.U.D., and the U. S. Attorney's Office, for effective enforcement of existing law.

#### Zoning

In considering applications for change in zoning or City initiated proposals, full weight will be given to the need for housing diversity and freedom of choice as well as the protection of existing development. To this end, the design related zoning ordinance regulations should be strengthened to assure compatibility between diverse dwelling types.

#### Housing and Safety Codes Adoption

For the protection of the public health and safety to ensure the provision of decent housing for persons who live in Sunnyvale, the City Council has adopted the most recent editions of the following building safety codes:





1970 Uniform Building Code  
1970 Uniform Housing Code  
1970 Dangerous Building Code

1970 Uniform Plumbing Code  
1970 Uniform Mechanical Code  
1971 Edition of the National  
Electrical Code

These should be continuously updated.

#### Code Administration

Maximum effort should be given to securing voluntary compliance with the City's housing and safety codes, especially where prevention of blight is concerned. However, where code violations threaten health, life or neighborhood stability, full enforcement power should be brought to bear.

#### Federal Rent or Interest Subsidy Programs

The City has already gone on record approving applications for F.H.A. moderate income interest and rental subsidy programs, as well as housing for the elderly. Each project should be carefully considered and applications encouraged on a scattered basis consistent with good planning principles.

#### Federally Aided Low Rent Public Housing

The City has contracted with the Santa Clara County Housing Authority in its leased housing program. It has also gone on record requesting an allocation of units dispersed through the City, if the Housing Authority should be allowed to construct low rent public housing. This practice should be continued and expanded on a scattered basis in accordance with good planning principles.

#### Federally Aided Urban Renewal

Urban renewal at this point does not appear appropriate or needed. If a need should arise it would be on a small area spot clearance basis.

#### Relocation

The City does not anticipate the need for family relocation due to governmental action. If such need should occur, the present practice of direct relocation payments and relocation assistance should be continued.



I. BACKGROUND CONSIDERATIONS

A community's appearance and the quality of its visual impact is a matter for public concern. There is a demonstrable relationship between visual quality and the City's economic well-being; its self-image and the image which it projects to strangers; health, both mental and physical; property values and the willingness of individuals to maintain property values. Because matters of beauty do not lend themselves to quantification or to precise codification, there has been in the past some reluctance to exert direct control over urban aesthetics. Nonetheless, it is the City's considered judgment that appropriate guidance can and must be given with enough flexibility on the one hand to avoid becoming arbitrary, while still attaining the goals and specific objectives set forth below.

While the bulk of the General Plan devotes itself to functional efficiency and the assurance of essential services and facilities for a sound living and working community, the plan should not lose sight of its ultimate concern, the quality of life to be enjoyed by the people of Sunnyvale. As the nation and its cities become better and better able to meet the necessities of life, the niceties will assume greater and greater importance. While these will be furnished largely by private means, local government has several essential functions. Government itself directly maintains and operates many services. Government itself therefore bears the responsibility that these be not merely utilitarian, but that they be, if possible, sources of pleasure and, at the very least, free of offense. Government, through its regulation of private development, can and should directly influence the visual aspects of such development. In addition to what can be required by local government, there are broad areas where, through its coordinating function, its advisory function, and its function in shaping public opinion, it can assist in bringing about or maintaining a high standard of appearance and amenity.

II. GOALS

To assure for the City of Sunnyvale a high standard of physical appearance throughout the City, both as to natural and man-made features of the environment, with particular emphasis on the principal avenues of travel and on landmark areas of concentrated public activity.





### III. OBJECTIVES RELATED TO PUBLIC PROPERTIES

A. Enhancement of the attractiveness of main entries to the City and its principal arteries of through travel, by special landscaping and median treatment. Routes of principal importance are Sunnyvale-Saratoga Road, El Camino Real, Mathilda Avenue and the Central Expressway.

B. Enhancement of neighborhood unity and attractiveness by a systematic installation and continuing maintenance of street trees and attention to the appropriate design of street furniture, including street lighting, hydrants, control boxes and the like.

C. The continuation of a high standard of design and maintenance of municipal properties and the encouragement of such design and maintenance on the part of public agencies not under the City's direct jurisdiction.

D. Provision of street furniture that not only does its job well but is handsome to look at and selection of street furniture so that there is the sense of a unified design approach throughout the City.

E. Assurance of elimination of clutter through the undergrounding of all new electric, CATV and telephone distribution installations and through a comprehensive program of replacing overhead wires already installed. This elimination is most urgent along public streets. Ultimately, it should eliminate overhead wires wherever they exist.

F. Consistent endeavor to make every change to the physical plant of the City, even the repair of a small section of paving, an opportunity to enhance the design image of the City.

### IV. OBJECTIVES RELATED TO PRIVATE DEVELOPMENT

A. Streets designed and developed to be pleasant places to walk down as well as drive upon. The arrangement of houses should create a pleasant streetscape. Alignment, paving, landscaping and tree planting should all be designed to enhance the visual effect.

B. Insistence in connection with plan approvals for private developments on attention to the compatible and appropriate spacial relationships between the several buildings on the site and between those buildings and adjoining developments.

1. In the process of review of private development, an effort should be made to assure variety rather than the monotony of excessive uniformity in building line or architectural treatment.



2. Because of the City's flat terrain, the skyline or the silhouette of buildings is of particular importance. Accordingly, an effort should be made to hide the typical clutter of roof top mechanical equipment.

C. Insistence in connection with plan approvals for private developments on a high standard of site design and landscaping with attention not only to the initial installation but also to provision for continuing maintenance to this end.

D. The encouragement of and where appropriate the requirement for the preservation of existing trees and landscape features.

E. Encouragement of harmonious form relationships among houses. Groups of houses should appear related to one another rather than jumbled together without pattern.

F. Arrangement of apartment development so as to harmonize with adjacent single family districts. Minimize clash of scale and activity pattern between apartments and houses.

G. Insistence upon a high standard of maintenance and housekeeping for all properties.

V. OBJECTIVES RELATED TO SUNNYVALE'S CENTRAL BUSINESS DISTRICT

A. The establishment of a high standard of landscaping on all public properties in and around the core, particularly the parking facilities, and major streets.

B. Insistence upon a high standard of maintenance and housekeeping for both public and private properties.

C. The encouragement of private actions leading to harmonious treatment of facades, color schemes, roof lines, rear entries, awnings and signs.

D. Development of Taaffe Street as a pedestrian mall.

E. Provision for harmonious design and arrangement of new structures through the combination of private cooperation and public review.

F. The beautification and improvement of Murphy Avenue through a landscape and angle parking treatment similar to what now exists along Taaffe Street.





G. The development or selection of designs of distinctive character, as well as durability, for such street furniture as benches, street signs, electroliers, trash receptacles and enclosures, fire hydrants, newspaper vending racks and the like.



## CIRCULATION

### I. Preamble:

Sunnyvale is fortunate in having a well planned network of major, arterial and collector streets that provide very adequate intra-city circulation for present traffic loads. The street system was developed following earlier General Plans and master street plans for the City. The actual construction has been carried out principally during the past eighteen years. It is a relatively new street system in good physical condition. It is also practically complete; of the major streets, only Fremont Avenue, Sunnyvale-Saratoga Road, Reed-Old San Francisco Road and Wolfe Road have to be widened and Mary Avenue extended north of Evelyn Avenue.

Sunnyvale is located on the east side of the lower end of the peninsula between San Francisco Bay and the Pacific Ocean. It is about 40 miles south of the City of San Francisco, 30 miles south of San Francisco International Airport and about 8 miles northwest of San Jose and the San Jose Airport. The central business district of Sunnyvale is served by a Southern Pacific Railroad Station. There is also a inter-city Greyhound Bus Station diagonally across from the railroad station.

Without good traffic circulation and access, no city could prosper and attract new industries and commercial establishments. Sunnyvale has a very adequate network of State freeways and County expressways available for vehicular traffic coming to and passing through the City for todays traffic loads.

A good summary of traffic circulation can be found in the Victor Gruen Report. "Regional traffic flow in the vicinity of Sunnyvale is fundamentally north-south in relation to the State, but is actually east-west in relation to the City itself. Intra-community traffic flow, on the other hand, is basically north-south within Sunnyvale. This results from the relative concentration of industrial land use in the northerly portion of the City and residential land use in the southerly portion of the City and most of the commercial, retail development in between."





There are six high traffic carrying capacity freeways and expressways serving the City:

- a. Mountain View-Alviso Freeway (route 237) provides access to and from the east bay areas.
- b. Bayshore Freeway (route 101) is a direct link to northern and southern California.
- c. Junipero Serra Freeway (route 280) provides access to and from all cities up the peninsula to San Francisco and down to San Jose.
- d. Stevens Freeway (route 85) carries traffic in a north-south direction through the western portions of the City.
- e. Central Expressway (a County route) provides a direct connection to San Jose to the east and Palo Alto to the west.
- f. Lawrence Expressway (a County route) provides a north-south corridor for the eastern portion of the City as well as providing direct access to the western portion of the County

Very high directional peak traffic loads are experienced on the major north-south streets in the City. In the morning the flow is northbound from the residences in the south to the industries in the north and vice versa in the evening. Bernardo Avenue, Mary Avenue, Hollenbeck Avenue, Sunnyvale-Saratoga Road, Mathilda Avenue System, Fair Oaks Avenue and Wolfe Road carry the majority of the peak direction flows as well as most of the north-south flow between peaks.

In order not to impede the vital north-south flow of traffic, the City contributed over \$3,000,000.00 to the County so that the Central Expressway, a east-west carrier, could be constructed as a depressed roadway with all intersections separated. If this were not done, traffic on the City's north-south streets would have experienced excessive delays and accidents when crossing the at-grade intersections of the Central Expressway.



The east-west traffic is carried satisfactorily on Homestead Road, Fremont Avenue, El Camino Real (State Highway route 82) a conventional avenue (after the widening now under construction is completed) Evelyn Avenue, Maude Avenue, Arques Avenue, Kifer Road, Caribbean Drive and Java Drive.

In the future as the traffic counts on the major City streets increase due to additional industrial and residential development, the intersections of all north-south carriers with the more important east-west streets have to be signalized for safety reasons, as well as to prevent excessive delays to the east-west traffic. The result is that there will be traffic signals every few hundred to a thousand feet along all these major streets. Unless the signals are interconnected and set for progressive movement, delays and driver frustration are bound to take place. The traffic signals along Fair Oaks Avenue were interconnected in the early 1960's and along Mathilda Avenue between 1969 and 1972.

Greyhound has only two routes through Sunnyvale where passengers can be picked up and discharges. Route F is along El Camino Real in both directions. Route C is from the east City limits along El Camino Real to Fair Oaks Avenue, then on Fair Oaks to Evelyn Avenue to bus depot. It then continues on Evelyn Avenue to Mountain View. Buses also follow the same route east bound.

The County will complete the widening of Lawrence Expressway from four to six moving lanes during 1972-1973 fiscal year. After the Moffett Park Industrial area is substantially developed, the existing north-south carriers will not be capable of handling the peak loads even if the traffic signal systems are fully interconnected and the major streets are developed to the maximum. The extension of Mary Avenue as a six lane street from Evelyn Avenue northward across the Bayshore and Mountain View-Alviso Freeways and thence along the east edge of Moffett Field to connect to Caribbean Drive will be required.

In the years to come the City has to follow the broad approach in solving its circulation problems. Some form of mass transit will probably come first with rapid transit following at a later date.





At present the mass transit facilities are completely inadequate. On the other hand several times during the past 15 years small bus systems were inaugurated, but they were all financial failures. Very, very few people would ride the buses. There was much discussion on why the bus lines failed, but no real conclusions. In future years, a good bus system in the south peninsula area and the extension of BART to Santa Clara County undoubtedly will be required.

During January, 1972 an experimental bicycle route was established along Hollenbeck Avenue between Homestead Road and Alberta Avenue. Parking is prohibited along both curbs and two six foot bicycle lanes were established. It was thought necessary to have a lane for each direction since the law considers a bicycle a vehicle and, as such, has to obey the vehicle code. The route was established as a joint effort with the County of Santa Clara and the cities of San Jose and Cupertino. It serves the De Anza College and as an inter-city route for bicycles. There are uniform bike route signs and striping which will probably become the standard for the County. The bicycle route will be studied periodically to determine if it is operating in a safe and efficient manner and if additional routes are desirable.

The City has a truck route ordinance that limits through truck traffic to certain major streets, industrial areas and commercial areas. A map showing the adopted truck route system is attached.

## II. Goals:

1. To review on a periodic basis the entire circulation plan of the City to determine if the system of State freeways and State conventional highways, County expressways and City major arterials and collector streets are handling the existing traffic loads adequately and can continue to do so when traffic flow increases in the future.
2. To interconnect all traffic signal systems on major city streets.
3. To construct the six moving lane Mary Avenue extension from Evelyn Avenue to Caribbean Drive when there is a proven need for it as well as to widen existing major streets as required.
4. To keep the State Division of Highways advised of the changing needs of the City of Sunnyvale concerning State freeways and conventional highways.



5. To keep the County of Santa Clara advised of the changing needs of the City of Sunnyvale for County expressway facilities.

6. To review the experimental bicycle route on Hollenbeck Avenue after it has been in operation for some time and to determine if additional bicycle routes are desirable.

7. To work with the adjacent jurisdictions to determine if there is need for mass and rapid transit systems.

### III. Sunnyvale's Circulation Needs:

There are a number of physical facilities that will be required during the coming years to insure that Sunnyvale will continue to meet its circulation requirements. These should be installed only after there is a proven need for them.

a. Complete the full street improvements on Fremont Avenue, Wolfe Road, Fair Oaks Avenue, Reed Lane, Old San Francisco Road and Sunnyvale-Saratoga Road.

b. Complete the six moving lane extension of Mary Avenue from Evelyn Avenue to Caribbean Drive with a grade separation at the Southern Pacific Railroad.

c. Interconnect the major traffic signal systems throughout the City.

d. Construct the Wolfe-Road grade separation over the Southern Pacific Railroad tracks.

The following improvements will have to be constructed by the Division of Highways in order to keep up with the ever increasing traffic volumes.

a. Widen the Lawrence Expressway grade separation over Bayshore Freeway (route 101) to six moving lanes, plus merging and off ramp lanes. In addition, a pedestrian overpass should be installed over the Bayshore Freeway just to the west of Lawrence Expressway.

b. Widen Stevens Freeway (route 85) to six moving lanes through Sunnyvale.

c. Widen Bayshore Freeway to eight moving lanes.

d. Complete Mountain View-Alviso Freeway to full freeway standards for its complete length.





The County of Santa Clara projects are:

- a. Complete the widening of Lawrence Expressway to six moving lanes.
- b. Widen Central Expressway to six moving lanes and construct a grade separation at its intersection with Mary Avenue.

The need for mass and rapid transit systems will have to be studied in great detail in conjunction with the other agencies.

The subject of bicycle routes will have to be carefully studied to determine what action the City should take concerning establishing future routes.

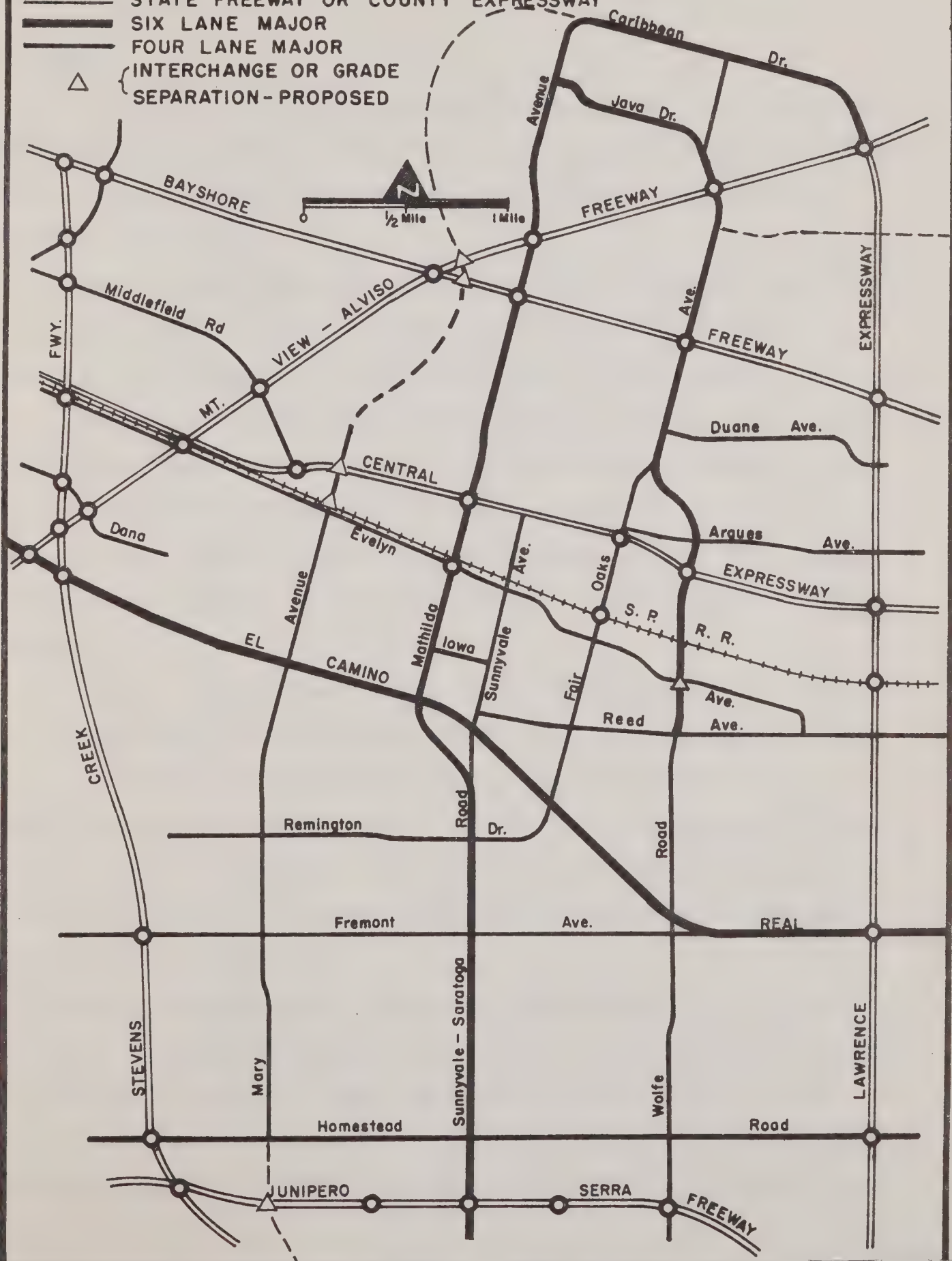
#### IV. Implementation Measures:

1. The future physical facility needs of the City are best handled as part of the City's long term Capital Program Budget.
2. Mass and rapid transit programs are area problems and should be considered in conjunction with other agencies and jurisdictions. The County of Santa Clara is the leader in developing this type of program. When the City believes that there is a need for these programs, it can take an active part in their development.
3. The City should work towards convincing the State Division of Highways and the County of Santa Clara that the needed freeway and expressway improvements should be budgeted and constructed.



# CIRCULATION

- INTERCHANGE OR GRADE SEPARATION - EXISTING
- ==== STATE FREEWAY OR COUNTY EXPRESSWAY
- ===== SIX LANE MAJOR
- ===== FOUR LANE MAJOR
- △ INTERCHANGE OR GRADE SEPARATION - PROPOSED







## SCENIC HIGHWAY

### I. PREAMBLE

There are no scenic highways within the City of Sunnyvale. The existing State highways and County expressways traversing the City are not candidates for conversion to scenic highways because they pass through built-up urban areas lacking in exceptional natural beauty.

The City has accomplished a great deal towards making its major streets attractive. Mathilda Avenue from its intersection with Sunnyvale-Saratoga Road to Caribbean Drive, a distance of about four miles, has a landscaped median. Caribbean Drive, Java Drive and portions of Evelyn Avenue are also landscaped. The El Camino Real Assessment District now under construction will landscape the median along El Camino Real across the entire City. But, the City still has more routes that should be landscaped and the aesthetics improved. Fremont Avenue, Wolfe Road and Sunnyvale-Saratoga Road are some of the more important streets yet to be landscaped and improved.

The northern boundary of the City is along the west shoreline of San Francisco Bay. The natural tidal areas with their marshes, large native population of wild fowl, and unobstructed view of the South Bay are worth saving and should be developed as scenic areas for the people. This means that adequate access to the perimeter of the area is required. Some means of circulation between the regional park along the north side of Caribbean Drive and the periphery of the open marsh lands would have to be developed.

Signs are a frequent source of degradation of the appearance of a street. The Community Development Department's Sign Control program is getting good results with commercial and industrial signs. But the City, itself, also has to look critically at its thousands of regulatory, warning, street, etc., signs; obsolete signs must be removed; clusters of signs must be reworked in order to obtain better



harmony with the surroundings; and the size, shape and method of placing signs must be constantly reviewed. Of course, the City has to use standard traffic signs; however, care must be exercised in their use and placement.

## II. GOALS

- A. To landscape all medians in divided major City streets and landscape the right-of-way along major streets where feasible.
- B. To carry out an aggressive sign control program for commercial, industrial and City-owned signs.
- C. To develop the scenic marsh lands as natural open spaces with access to their perimeter for the public.

## III. IMPLEMENTATION

- A. Provide funds for the installation and maintenance of landscaped medians and side areas in future City budgets.
- B. Carry out an aggressive, continuing sign control program for all signs in the City.
- C. Continue to enforce the requirements for on-site landscaping when development of private property takes place.



## CONSERVATION

### Preamble

Man cannot survive without utilizing his natural resources prudently. Every human action affects the world around us in some degree and the full effect is difficult to assess because of complex relations among living and non-living things. One can neither expect to restore the entire past nor preserve the entire present for future generations. However all can and should strive for proper balance between resource development and maintenance of pleasant surroundings.

It is incumbent upon the City to develop and utilize its natural resources toward the preservation and enhancement of the environmental quality of the community.

### Goals

Primary goals included in the conservation element of the General Plan should be:

1. To develop a program to preserve open space for the protection of wild life, as in the Baylands and its shoreline. In 1970 the City indicated its desire, by the adoption of an Ordinance, establishing an interim zoning district providing regulations for use of land and construction of buildings on the portion of the Baylands in order to develop alternate land use patterns.
2. To identify areas of open space within the City such as the Stevens Creek area on the westerly boundary of the City for potential parks and greenways.
3. To provide an adequate system of dikes and pumping stations to prevent flooding of the low land areas within the City that are subject to inundation.
4. To keep air pollution to a minimum by encouraging types of industries to locate in the community that do not create pollution.





5. To keep water pollution to a minimum by encouraging types of industries to locate in the community that do not create water pollution.
6. To regulate the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
7. To prevent, control, and correct the erosion of creek and flood control channel banks.
8. To regulate uses that generate high noise levels. To develop buffers between high noise generators, such as freeways and expressways, by establishing landscaping standards. To require backup development along such highways in order to reduce the environmental impact of noise.
9. To establish noise standards associated with construction projects, industrial activities, and airfield operations.

#### Implementation

In order to implement the above goals toward enhancement of environmental quality of the community, studies should be made relating to the Bay and its shoreline, to develop alternate land use patterns, seek to secure agreement between local interests as to goals for the Baylands, prepare a strategy for adoption, and implement plans relating to the San Francisco Bay within Sunnyvale.

Park lands and greenways along Stevens Creek should be developed through participation within the program with other governmental agencies, such as the Flood Control District and the City of Mountain View.

Land use and control measures should be developed to protect the low land areas subject to flooding. In 1971 the City obtained authorization for sale of Federal flood insurance at subsidized rates on an emergency basis. The City Council has expressed its positive interest in securing flood insurance coverage under the National Flood Insurance Act, and represented that it presently has the power to adopt



and enforce land use and control measures within its boundaries and may disapprove a development because of flood hazard and inundation and require protective improvements to be constructed.

To prevent deterioration of the environment due to air pollution, noise, and water pollution, enforcement of the operating standards contained in the codes should be stepped up. Standards now provide that operations upon land in any zoning district shall be controlled in such a manner as to promote and protect the public health, safety, convenience and general welfare of the inhabitants. The owner or occupant of land used for any purpose shall not suffer or permit any activity which is obnoxious or offensive or creates a nuisance to the occupants of adjacent properties by reason of the emission of dust, fumes, glare, heat, liquid, noise, odor, smoke, steam, vibrations or similar disturbances.

To prevent pollution of our waterways, natural streams and flood channels, strict enforcement of the provisions of the Sanitation and Health Code is necessary. The codes provide that discharge of any industrial waste into a storm drain or to a natural outlet is unlawful without written approval of the City.

Cooperation with the County Flood Control District should be sought to prevent, control and correct the erosion of creek and channel banks.





## OPEN SPACE RECREATION

### Preamble

Land is a finite resource, the value of which escalates rapidly as urbanization unfurls to accomodate population explosion and immigration. A major concern and traditional determinant in allocating uses of land has been the preservation of open-space land for multi-recreation purposes. The present system of national parks and forestry preserves attests to this. So does the effort taken by the state and local communities to provide open-space for parks and recreational purposes.

Local communities have a major stake in evolving and enforcing policies conducive to proper land allocation within the realities of the local cultural, geographic, and socio-economic environment. To protect open-space from encroachment by the pressing forces of growth, and to provide for a balance of interests, the local community needs a master land use plan. Sunnyvale's Master Plan in emphasizing the necessity of balanced uses states that a coordinated system of regional, district and neighborhood parks needsto be developed to provide recreational facilities. From this general mandate, the City has evolved specific plans regulating land use to assure that the acquisition and development of open-space for recreation conforms to this general objective.

The City's approach to fulfilling the requirements of the master plan has been to define and put into effect precise open-space acquisition and development standards. To this end a complete system of park, recreation, and cultural land uses has been established. The standards have called for the acquisition and development of district and neighborhood parks throughout the City. The neighborhood park provides both indoor and outdoor facilities, contains 4 to 7



acres, is adjacent to an elementary school, and is oriented towards the recreational needs of young children and families. District parks in contrast contain at least 10 acres, are adjacent to intermediate or high schools, and are oriented towards the recreational needs of teenagers and adults. A part of the open-space plan has been to provide a park site in each inhabited square mile of the City. In addition, there has been provision for special recreation facilities such as a major community center and public golf course to augment the park system. Also a part of the development standards has been the development of each park according to a special theme to provide for a variety of recreational uses.

Another feature of the open-space plan has been to coordinate site development with existing or proposed school sites. This not only provides for a unified approach to over-lapping recreational and general physical development needs, but also assures the fullest possible use of public owned open-space sites. A further extension of this concept has been the direction to landscape or otherwise beautify open-space in public utility rights-of-way.

Attention has also been given to the acquisition of regional open-space sites for park purposes. Finally, the private sector has been enjoined to develop additional recreational facilities.

The results of both master and precise planning for open-space park land and its use for recreational purposes are shown graphically on the attached map. Development over the years has complied with the plans. Each inhabited square mile of the City has a park site, developed and in operation. A catalogue of the open-space City park system includes 5 district parks (10 or more acres); 9 neighborhood parks (less than 10 acres); a full size municipal golf course (145 acres); a community center (22 acres of facilities); a civic center (10 acres of facilities); two regional parks - Baylands (172 acres) and Mountain Park (250 acres outside the City limits); an arboretum, two social education



centers, and 5 swim centers. In addition the open-space system supplies these types of recreational facilities: meeting rooms, tennis courts, horseshoe pits, lawn bowling green, childrens wading and spray pools, playground equipment and structures, ball fields complete with bleachers, picnic facilities and a host of other means for meeting recreational needs.

The community center is a complex with a theater for 200, arts and crafts building, indoor sports building, recreation building and practical outdoor landscaped areas. All district and neighborhood park sites and facilities are coterminous with school grounds and facilities and are used jointly. Coordination with the schools extends from physical placement of city-owned recreation facilities on school property to joint use and operation of all facilities and open-space sites.

That the master and precise open-space mandate has been met successfully is indicated by the numerous state and national awards the system has received, and the reception the residents of the community have evidenced as open-space plans were set and carried to completion.

#### Goals

Primary goals in the open-space recreation element of the General Plan are still:

1. To preserve open-space land for recreation.
2. To meet open-space land needs as a result of continuing population growth.
3. To improve open-space land for recreation uses.

#### Implementation

Within its limits the City will continue to preserve open-space land acquired for recreation uses. This is assured by the development that has taken place already, and by public lands acquired under the general master plan mandate.





To meet additional open-space land needs for recreation the City is working with the County on regional park systems. A natural part of this system would include the Baylands Park, the Mountain Park, and the Salt Pond areas at the northly limits of the City. Planning for these regional open-space land and their recreation uses is already underway.

Finally, the improvement of open-space land to meet the recreation needs of a mobile, influx population is a constant process carried out on the basis of studies and planned programs each fiscal year.



ADOPTED 5-23-72





## S A F E T Y

### I. PREAMBLE

Safety, the protection of life and the property, is the most basic need that local government is expected to fulfill. The day-to-day provision of safety services is routine and well within the capability of local public safety forces.

A catastrophe, however, places an extraordinary strain on all of the resources of local government. The entire local government must function as a public safety organization during such times. Such a transformation must be planned. The role of each key individual must be defined and the function of each municipal organizational unit must be described if an effective disaster team is to be developed.

This planning element is based on the following premises. First, if the disaster is limited to the local area the City must be able to take immediate, effective action to provide safety services pending arrival of mutual aid and City resources. If the disaster covers a wide area, the City will be required to engage in sustained local operations in coordination with regional disaster control forces. The safety plan must provide for response to a wide variety of disasters. The City is located in an active seismic area, has already experienced a tornado and may be subjected to many other types of catastrophe.

### II. ENVIRONMENTAL FACTORS

In the last survey by the American Insurance Association, the only disasters that they considered probable to a significant degree were earth-



quakes and conflagrations, hazards to which all communities in this area are exposed. These are included in the following discussion of hazards as well as potential disasters whose occurrence is remote.

A. Earthquakes, Tsunami (Seismic Sea Waves) and Flooding by Saltwater

These subjects are covered under the Seismic Safety Element of the General Plan.

B. Areas Subject to Ground Failures

The highest natural elevation within the City is 300 feet. The slope across the City is in a northeasterly direction from the high point in the southwest corner to the bay. The average slope is approximately 0.9%. There are no areas in the City that are steep enough to cause landslides, mudslides, excessive erosion, etc., over a significant area--even during long periods of rainy weather and/or major earthquakes. The local possible exceptions are in the immediate vicinity of the banks of certain natural sections of Stevens Creek and Calabazas Channel (from Homestead Road to the boundary of the City of Santa Clara).

Subsidence of the ground surface due to pumping more water out of aquifers than was replaced annually by natural and artificial recharge of ground is discussed in the Seismic Safety Element of this report.

C. Fresh Water Flooding

Historically, Sunnyvale has been subject to floods of substantial magnitude. In 1955, there was a flood that experts estimated was between a 50 and 75-year average recurrence interval storm. 53 houses in Sunnyvale were inundated. Again in 1958, there was a flood; but of lesser magnitude.



The complete drainage and potential flood pattern has been changed since the 1955 and 1958 floods in Sunnyvale. To the south of the City the Calabazas and Regnart Creeks have been improved by the Santa Clara County Flood Control and Water District; Stevens Creek Freeway, State Route 280, was constructed as a depressed section south and parallel to this City's southern boundary; and large storm drains have been installed in Homestead Road. These improvements should cut off the major overland flood flow from the Cupertino area that caused extensive flooding to the southern portions of Sunnyvale in 1955.

The majority of the houses flooded in 1955 were located south of the Southern Pacific railroad tracks and east of Lawrence Station Road. This area has since been deannexed by Sunnyvale and annexed by the neighboring City of Santa Clara.

The major flooding in 1955 in the northern portion of the City was due to the lack of an outlet to San Francisco Bay for the Calabazas Channel. Before 1955, the ranchers filled in, leveled and planted the original channel bed of the Calabazas Channel north of Kifer Road and dug a very small ditch to connect the new north end of the Calabazas Channel with the San Tomas Creek, about a half mile to the east. San Tomas Creek was not large enough to carry the flows from major storms that drained to it originally--let alone handle the additional full flows from the larger Calabazas Channel. There were three reasons why this interconnect system worked without too many problems for some years prior to 1955: first, the area had been experiencing a relatively dry cycle; second, no major building developments were existing north of Kifer Road; third, the developments along the upstream reaches of the Calabazas Channel





were not extensive. By 1955, development had started along the upper Calabazas Channel and the Lakewood subdivision was under construction in Sunnyvale.

The City's storm drain system and the Flood Control District's East and West Channels and Stevens Creek that pass through the City in a north-south direction and discharging to San Francisco Bay, should adequately protect the western and central sections of the City. The eastern section of the City served by the Calabazas Channel could experience some flooding problems in case of a very intense storm.

Sunnyvale has a good, relatively complete storm drain system. Since 1955, the City has constructed over 100 miles of storm drains, two storm drain pump stations and a five-acre storm drain retention basin. The storm drain system should be adequate to prevent extensive damages from rainwaters falling within the city limits, but is not capable of protecting the area if substantial quantities of floodwaters overflow from flood control channels.

The most inadequate section of Calabazas Channel within Sunnyvale is from the Southern Pacific railroad tracks to the Central Expressway. This section has flowed full and/or overflowed several times in the past few years. The Santa Clara County Flood Control and Water District has budgeted funds to improve this portion of the channel in 1972. The City sandbags the entrance to the Shedd-Bartush Plant every time there is a heavy rainstorm to insure that the plant will not be flooded.

The section of the Calabazas Channel between Homestead Road and Lawrence Expressway is also inadequate and this area could flood during a very intense storm.



One can expect some floodwaters to overflow the Calabazas Channel north of Bayshore Freeway during a storm somewhat in excess of a 50-year average recurrence interval. This could affect the eastern portion of Lakewood Village and the trailer park and industrial areas north of Lakewood Village bounded by Lawrence Expressway, Mountain View-Alviso Freeway and the Calabazas Channel. The industrial area bounded by Mountain View-Alviso Road, the East Channel, the Calabazas Channel and the salt ponds could also experience some flooding if the Calabazas Channel overflowed. This area is protected by the City's Storm Drain Pump Station No. 2, the five-acre storm drainage retention basin and the storm drains up to 84 inches in diameter. These storm drain facilities were developed as a joint project with the State Division of Highways when the Mountain View-Alviso Freeway was constructed. The system was designed for a storm with a 100-year average recurrence interval because a portion of the drainage area is below high tide level and cannot be drained by gravity. However, the design considers only the rainwaters that fall on the drainage area contributory to Pump Station No. 2 and excludes all floodwaters that might overflow the Calabazas Channel.

D. High Winds and Tornadoes

The only recorded tornado ever to strike Sunnyvale was in 1951. It destroyed the Southern Pacific railroad station, as well as blowing off a large number of roofs on its trip across the City. It is also possible to get strong winds with gusts from 60-80 miles per hour. Compliance with the Uniform Building Code insures that buildings will not be knocked down nor the roofs blown off by any but winds of excessive or tornado force.





E. Major Fires and/or Conflagrations Covering Wide Areas

Conflagrations are another type of hazard that could assume severe proportions during early fall with its seasonal combination of strong winds, high temperatures and low humidity. The southern portion of the City is particularly susceptible because the majority of the houses have wood shake or shingle roofs. Burning shake roofs give off embers that can be carried by the wind and cause roof fires on adjacent structures. Under adverse conditions it is possible that a number of houses could be involved before the fire apparatus could respond.

There are very large industrial and commercial buildings that could present severe problems if they were to burn. In 1958, one of the larger wings of the Libby, McNeill and Libby cannery caught on fire and it required practically all the fire fighting apparatus available in Sunnyvale, plus mutual aid equipment from several of the surrounding cities, as well as huge quantities of water from Sunnyvale's water system in order to bring it under control.

Except for a few small, relatively isolated undeveloped parcels, forest fires and brush fires are not anticipated in Sunnyvale. Brush fires on undeveloped lots are not an excessive hazard because of good access and availability of fire hydrants.

F. Major Accidents

There is always the possibility that a severe, extensive fire could be started after an accident involving a tank truck carrying gasoline or other inflammable liquids. The problems could be compounded if the burning liquid entered the storm drains through the drop inlets in the street. The City does have separate storm drain and sanitary sewer systems.



A liquid fire in the storm drain system could be isolated and probably kept from damaging adjacent structures.

Other types of serious accidents could involve tank trucks carrying toxic or corrosive chemicals, natural gas lines, large airplane wrecks, industrial explosions, etc.

G. Areas of High Noise Factor

There are no airports within the existing city limits of Sunnyvale; however, the Moffett Field Naval Air Station is contiguous to the northwest boundary of the City. For the majority of the year the wind conditions necessitate the use of a flight approach pattern that passes over the northwestern portion of the City at low altitude. Noise was one of the reasons why the Navy moved most of their jets to other airfields some years ago. A large percentage of the Navy planes regularly using the field are propeller-driven, rather than jets.

There is little or no extra noise reaching the City from the San Jose Airport which is located about 8 miles away.

None of the State freeways and only one of the County expressways (the Central Expressway) were constructed in a depressed section. There are a number of residences and industries that face frontage roads or back directly onto freeways or expressways. It is possible to measure noise levels of 65-75 decibels at the property lines of these developments.

H. Evaluation of Existing Structures

The large majority of the residential, industrial and commercial buildings have been constructed in Sunnyvale since 1955. The building, plumbing and electrical inspectors of the Community Development Department have enforced the applicable requirements of the Uniform Building Code, the



Uniform Plumbing Code and the National Electric Code for all structures built since the early 1950's. This means that most of the structures in the City are relatively young and built pursuant to the Codes. The following is a quotation from the Consolidated Technical Papers Prepared in Conjunction with Community Renewal Studies.

"The Survey showed that:

"Eighty-two percent of all units in the City are in sound condition and require only normal maintenance.

"Fourteen percent are in sound condition but require minor repairs that are not usually included in the normal maintenance of the unit. Examples of the required repairs are inadequate electrical connections, poorly maintained fences, poor landscaping, cracked stucco. etc.

" Three and one-half percent showed evident deterioration. By evident deterioration, we mean that major components of the structure, such as the walls or the roof have deteriorated to the point where the cost of repair or replacement would exceed 50 percent of the value of the component.

"Less than one percent of the units were dilapidated. A unit is defined as dilapidated when the key structural components have deteriorated to the point where total replacement of the component would be required.

"There are distinct patterns in the quality of housing throughout the community. Housing units with varying degrees of quality were distributed as follows:

"Scattered dilapidated units either in the oldest sections of the City or associated with agricultural production.

"Clusters of housing showing evident deterioration.

"Three well defined areas where many of the units require minor repairs that are not usually included in normal maintenance..

"Given the types of problems identified in the survey, there are several alternatives that should be explored. The implications of each alternative must be determined in sufficient detail to permit a meaningful decision by the City. The alternatives include:





- "1. Continue existing programs, such as zoning, municipal housekeeping, at current levels of effort.
- "2. Encourage upgraded maintenance to maintain the quality of declining neighborhoods and to hold the line until private redevelopment occurs in the central area.
- "3. Enforce upgraded maintenance and combine this effort with spot clearance of dilapidated structures.
- "4. In the downtown area, encourage coordinated private redevelopment, including joint ventures by existing owners without involving the powers of eminent domain by public agencies.
- "5. Public redevelopment, which appears unwarranted at this time but may be a long run possibility if current rates of deterioration continue."

There are only an insignificant number of deteriorated or dilapidated industrial and commercial structures.

### III. GOALS

To protect life and property and to minimize damage caused by natural and man-caused emergencies.

### IV. IMPLEMENTATION

#### A. Constraints

1. Providing sufficient resources, particularly manpower, in the case of an area-wide disaster.
2. Maintaining operational capability of communications networks in certain types of disasters.
3. Providing logistical support for sustained operations over a long period of time.



## B. Disaster Control Plans

Plans will be developed to reach the stated objective within the limits of the constraints. The plans will include the following elements.

### 1. Alert Warning

The alert warning is designed to receive alerts of impending disasters and warn residents in affected areas to take required actions to minimize the hazard involved.

### 2. Disaster Control Center

Establishing a disaster control center involves assembling the responsible officials at a site where communications facilities are available for the purpose of receiving situation reports, assembling resources and directing operations.

### 3. Disaster Response Force

The disaster response force is a force composed of all City employees operating under an organization structure planned in advance. Such an organization would be designed for effective disaster control and may be different from the City organization for routine operations. This force would be supplemented by mutual aid forces when available.

### 4. Operations Plans

These are plans for response force deployment based upon a variety of situations.

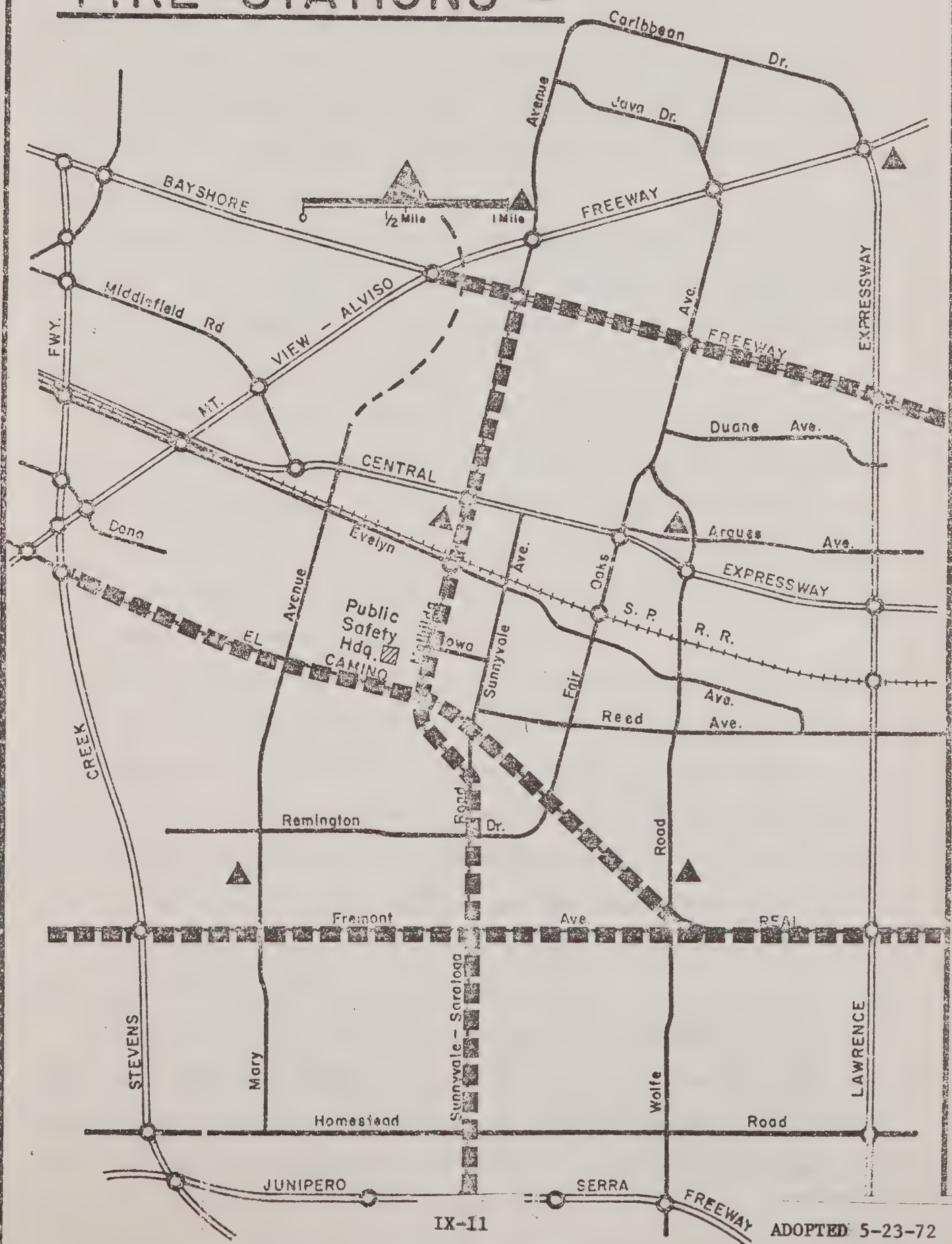
### 5. Support Plans

Support plans describe means of logistical support for sustained operations.



# EVACUATION ROUTES

## FIRE STATIONS ▲







## SEISMIC SAFETY

### I. PREAMBLE

It is generally known that the San Francisco Bay Region is an area of high earthquake frequency and intensity. Approximately 12 times per century the bay area can expect damaging earthquakes with at least one equal in intensity to the 1906 San Francisco earthquake.

Sunnyvale lies between two of the most important fault systems in California. The San Andreas fault lies about 7 miles to the southwest and the Hayward fault about 10 miles to the northeast. There are no known faults within the city limits of Sunnyvale.

It is not economically possible to build on bedrock in Sunnyvale because of its great depth from the surface. In general, north of Bayshore Freeway, there are bay mud deposits. The rest of the city is covered principally by alluvium deposits generally 300 feet or more in depth. The safest foundations are built on bedrock or other consolidated rock formations since ground motion is of shortest duration on this type of material.

During earthquakes intense shaking of longer duration can be expected in filled areas and in bay mud and alluvium deposits. Geologists have found some evidence that as the depth of alluvium increases, so does the ground motion. Historically, the greatest damages experienced by earthquakes have been on filled lands and natural, unconsolidated sands, gravel, clay and mud deposits, particularly if they are at or near the point of saturation with water. Vibration can cause these types of soils to compact in a very irregular manner and some local subsidence takes place.

During the past few years geologists have been accumulating data that shows some slippage or "creep" is taking place along both the San Andreas and Hayward faults. Surface faulting could take place in Sunnyvale but it would take a very intense earthquake to produce this condition. The San Francisco



earthquake of 1957 with a magnitude of 5.3 did not produce any surface faulting.

Some minor cracking of the earth's surface can be expected during the more intense earthquakes. Lurch cracks may be several feet long and could affect structures or underground utilities, such as water mains, sanitary sewers or storm drains.

Although landslides are a part of the major earthquake damage in hilly or mountainous areas, it is not anticipated that they would be of any significance in Sunnyvale because of the relatively flat slope from the bay westward to the foothills. Exceptions might be along the deeper sections of Stevens Creek and Calabazas Channel.

During earthquakes seismic sea waves, also known as tsunami or "tidal waves," can be formed. In the past 15 years the City received three tsunami warnings and the city took the required emergency precautions, but no wave or high water materialized. It is theoretically possible to have the right combination of steady winds, tides and seismic conditions to form a wave two or three feet high in the south end of the bay, but the probability is low and the damages from such a wave should be minimum since it might momentarily overtop a levee but it should not destroy it.

Starting in the 1880's, ranchers, municipalities and industries dug many wells and pumped an ever-increasing amount of water out of the aquifers. By about 1900, more water was being removed from the ground than was being recharged naturally by rainfall. As the water table fell, the voids in earth in the drawdown volumes collapsed and the ground surface over the aquifers subsided. In some locations the subsidence was 6 to 10 feet and generally the greatest subsidence took place on the floor of the valley. The entire area along the bay from Mountain View to San Jose was affected. In Sunnyvale levees were built to protect the areas that subsided below high tide level.



From the 1930's to the 1950's, a special county district constructed a series of dams throughout the county and started the artificial recharge of groundwater. Although this was of great help, the pumping of groundwater was still at a greater rate than could be recharged by natural and artificial means and subsidence continued.

In the late 1960's, the Santa Clara County Flood Control and Water District entered into an agreement with the State to buy substantial quantities of water that is pumped from the delta and transported to Santa Clara County through the South Bay Aqueduct. The District then started an enlarged program to artificially recharge the aquifers with the water from the dams plus sufficient water from the delta so that by 1970, subsidence was no longer a problem in Sunnyvale.

As a result of subsidence, a strip of land within the city, approximately 1,500 to 2,500 feet in width, is below the level of the bay during periods of extreme high tide coupled with a strong wind. During the middle 1960's, the Santa Clara County Flood Control and Water District assumed responsibility for and constructed levees of adequate height and substantial cross-section that were required to protect the lands below high tide level. The levees were built of relatively good imported fill rather than soft bay mud dredged locally from a slough.

The city has two large storm drainage pump stations and a five-acre storm drain detention pond to store and pump out the rainwaters that are collected on the areas that are too low to be drained by gravity to the bay.

Geologists state levees consisting of dredged bay mud that are also constructed on foundations of natural soft bay muds will settle substantially during earthquakes because of the outward displacement of the soft mud below the levee due to the vibrating, heavy material in the levee. The geologists believe the tops of the levees might settle below the level of the highest tides. This condition exists for the levees around the city's oxidation ponds in the





outer baylands area and for certain salt pond levees; however, there are two different, favorable factors relating to the levees protecting the areas below high tide level. First, practically all of the fill in the levees is imported material, not soft bay mud; and second, the levees are located on material that is much firmer than the soft bay mud encountered farther out in the bay. Until subsidence took place, this area was well above high tide level. The City's Water Pollution Control Plant is built in the immediate vicinity of the subject levees; buildings, sedimentation tanks, digesters, etc., were constructed on foundations that did not require piles. This does not imply that these levees cannot fail during an earthquake. But the probability of failure is very substantially less than if the levees were constructed of soft dredged material located on deep soft deposits of bay mud.

The City's sanitary landfill is located behind and parallel to approximately one-half of the levees in question. Its surface elevation varies from 5 to 20 feet above high tide level and by the installation of stop log or other similar emergency structures across the traversing roads or drainage ditches, the sanitary landfill could serve as a very effective protection device in case a portion of the levee did fail.

Landowners have filled a wide area about 4 to 6 feet deep behind about 25% of the length of the levee.

The City requires that all buildings shall be constructed on a pad filled to at least elevation 4.5; this is above the level of all but moderate to high tides.

It is anticipated that emergency repairs to damaged levees could be made during the period between high tides if there were to be a levee failure during an earthquake. Under these circumstances, it should be possible to protect life and minimize damages in the areas below high tide level in case an earthquake does damage a portion of the levee system.



This material about the earthquakes was written not to scare potential developers but to inform them and explain why the detailed requirements of the Building Code have to be complied with. It must be realized that earthquakes can be expected but preventive steps can be taken to limit damages and avoid fatalities. The first thing to keep in mind is that Sunnyvale is in exactly the same position as the other cities around the south bay. The geological conditions are similar and the probability of a high intensity earthquake is equal. The most positive action that can be taken to neutralize the effects of an earthquake is to design and construct earthquake resistant structures. The City requires that all buildings must meet the applicable provisions of the latest Uniform Building Code, the Uniform Plumbing Code and the National Electric Code. These codes require that the necessary precautions are taken during design and construction so that the structures will be earthquake resistant. It is up to the building inspectors in the Community Development Department to make certain that all design and construction requirements are carried out by the architects, engineers and builders. Earthquake resistant structures should suffer little or no damage during minor or moderate earthquakes.

The City is active in the review of the code changes that will provide greater protection during major earthquakes. From the earthquake point-of-view, the City is fortunate in having very few building types that are susceptible to extensive earthquake damage. The objective of the codes is to have buildings constructed that will protect life with moderate structural damage during major earthquakes.

The water distribution system would sustain some damage during a major earthquake. Sunnyvale is in a good position since it has three major sources of water supply and about 28 million gallons of steel water storage tanks. The two imported water sources are the City and County of San Francisco's Hetch-Hetchy system with water coming from the Yosemite area, and the Santa Clara





County Flood Control and Water District with its delta water supply. The third source is local wells. With three water sources, the probability is that one source can be repaired and put back in service within a reasonable time period. Any one source could meet the minimum rationed water demand for a substantial length of time. A large portion of the 28 million gallons of water stored in the steel tanks should be available for establishing a water rationing system immediately after a disaster.

The streets could be repaired for limited use within a short time after a major earthquake; the City would be able to carry out the necessary emergency rescue operations and start to make the necessary repairs.

In the Safety Element of this report there are descriptions of the procedures followed in emergency rescue work and equipment and manpower available.

## II. GOALS

1. To insure that all structures constructed in Sunnyvale are built pursuant to the City's Building, Plumbing and Electrical Codes and are earthquake resistant.
2. To design, construct, operate and maintain the water system, storm drains and sanitary sewers so that they will suffer the minimum possible damage during an earthquake and be put back in operation as soon thereafter as possible. To maintain adequate standby equipment and an inventory of materials and supplies sufficient to meet the first phase of the emergency. (See the Safety Element for the description of emergency rescue procedures, equipment, etc.)

## III. IMPLEMENTATION MEASURES

In order to insure the construction of earthquake resistant structures, safeguard life and properties and minimize damages, the following codes should be utilized and strictly enforced by the City:





### Housing and Safety Code Adoption

1970 Uniform Building Code

1970 Uniform Housing Code

1970 Dangerous Building Code

1970 Uniform Plumbing Code

1970 Uniform Mechanical Code

1971 Edition of the National Electric Code

It is very important that all codes be updated continuously.

### Constant Control of Utility Systems

The budget has to supply sufficient funds to enlarge, operate, maintain and repair the City's utility systems and at a level where minimum damages would be experienced from earthquakes. There has to be means and plans to reestablish, first on an emergency basis, then on a permanent one, the streets and utility systems after an earthquake.



## NOISE

### I. PREAMBLE

The modern city has many sources of noise that are loud enough to be a problem to the people in regard to health and generators of complaints.

A few of the major producers of noise within or near Sunnyvale are:

- a. Aircraft, particularly jet-powered;
- b. Freeways and Expressways;
- c. Railroad Locomotives and Trains;
- d. Industries;
- e. Loudspeakers;
- f. Construction Activity; and
- g. Emergency Vehicles.

The City has little direct control over most sources of noise. It will take State and Federal laws to quiet noise sources, such as cars, trucks, railroad trains and airplanes. Noises emitting from emergency vehicles and industries can be controlled to a certain degree by the City.

Complaints can be expected when exterior noises are loud enough to penetrate the walls of houses and interfere with televisions, telephone conversations, sleeping, etc. From data gathered it has been determined that the general public can usually tolerate a semi-continuous outside noise level up to 70 dBA if the insulation reduces the maximum interior sound level in houses and apartments to a maximum noise range of 35 to 45 dBA. A higher noise level will result in repetitious and strong complaints.

It is the consensus of opinion that in the future noise pollution must be controlled better than it is at present. There are several ways to reduce the noise levels.



- a. Modify the sources so that less noise is produced. This will require State and Federal action in the cases of trucks, automobiles, and airplanes, as well as local vigilance.
- b. Constructing barriers between the source of noise and the people. This will require long-term planning and budgeting of funds, particularly if earth mounds and solid masonry walls were to be constructed along all freeways and expressways. Results of scientific, well-controlled tests prove that living plants, no matter how closely spaced, do not cut down materially on the noise levels. Plants vibrate, lack density and do not restrict air flow. Effective barriers to sound have to be large, of dense material and properly located.
- c. Provide soundproof enclosures and sound insulation. This, in most cases, would mean making houses and apartments of soundproof construction. Costs of construction would increase but greater privacy could be expected.

After January 1, 1973, trucks driving less than 35 MPH shall not produce over 86 dBA and for speeds over 35 MPH, not more than 90 dBA. Motorcycles will be limited to 82 dBA below 35 MPH and 86 dBA when driving faster. Automobiles will be limited to 76 dBA and 82 dBA, depending on whether they are traveling below or above 35 MPH. These limits are measured 50 feet from the center of the traveled lane. Average peak hour traffic on freeways and expressways, measured about 100 feet away, will generally be about 75 to 80 dBA.

#### Definition of Key Terms:

##### A-Weighted Sound Level (dBA)

Sound is measured by an instrument called a sound level meter. It measures the level of sound at a given location. It has two scales:





the A-scale and the D-scale. Sound is made up of high, medium and low frequencies within the range that can be heard by the human ear. However, the ear will not respond uniformly to all frequencies of sound. It is more efficient at the normal voice range, or medium frequency, than at high or low frequency. The A-Weighted scale measures principally the medium and higher frequencies that are the chief cause of noises annoying to the ear at moderate sound levels. The D-Weighted scale also concentrates on the medium and higher frequencies but in a different manner than the A-scale. The D-scale is particularly useful in measuring noises produced by aircrafts.

#### Noise Exposure Forecast (NEF)

The noise environment produced by aircraft is measured by the Noise Exposure Forecast. The calculations for NEF consider level of noise, duration and number of operations taking place during the daytime and nighttime.

#### Aviation Noises:

There are three possible sources of aviation noises in Sunnyvale.

- a. San Jose Municipal Airport;
- b. Moffett Field Naval Air Station; and
- c. Flyovers.

The generally accepted interpretations of noise compatibility are shown in the following table:

<u>Land Use</u>	<u>NEF</u>		
	<u>Satisfactory</u>	<u>Borderline</u>	<u>Unsatisfactory</u>
Residential and Educational	Less than 30	30 to 35	Greater than 35
Industrial	Less than 40	40 to 50	Greater than 50
Commercial	Less than 35	35 to 45	Greater than 45



Sunnyvale is approximately 8 miles northwest of the San Jose Municipal Airport and not directly under the approach pattern. The landings and takeoffs from this airport have practically no effect on the noise levels within the City of Sunnyvale.

The NEF contours for Moffett Field Naval Air Station\* as they affect Sunnyvale are shown on the attached map. One can determine from the area enclosed by and location of the NEF contours on the map as compared to the standards for land use-NEF levels in the above table that practically no residential areas in Sunnyvale are seriously affected by the operation of the field.

The vast majority of the flyovers above Sunnyvale are above 3,000 feet and, therefore, are generally below the 30 NEF level.

#### Freeway and Expressway Noises

Major sources of noises within the City are the State freeways and County expressways. There is a very adequate system of freeways and expressways, both in the north-south and the east-west directions.

Table of State Freeways and County Expressways

<u>Name</u>	<u>State Route No.</u>	<u>Approximate Length Within City (Miles)</u>	<u>Percentage Through Residential</u>
Mountain View-Alviso Freeway	237	3.5	5
Bayshore Freeway	101	3.0	75
Junipero Serra Freeway	280	0.6	100
Stevens Creek Freeway	85	1.7	100
Central Expressway	--	2.7	50
Lawrence Expressway	--	3.0	45

\* Prepared from data in "Aviation Noise Evaluations and Projections" - Association of Bay Area Governments.



Highway noises are customarily measured on the A-scale (dBA) of the sound level meter. When highway noises reach the 70 dBA level, a few complaints can be expected. At about 85, petitions of protests will be circulated. Most people will accept a noise level of 60 dBA without complaint. Noise levels for areas near the freeways and expressways were calculated by City staff since no measurements from the State or County were available for the freeways and expressways. At a later date when the actual measured data is available, new sound level contour maps will be prepared.

#### Railroad Noise

The Southern Pacific railroad tracks extend for 4 miles in an east-west direction and pass through the center of the City. Around 20% of the area abutting the railroad tracks is residential. Noise level contours for through trains have been calculated and plotted on the attached map. There are no rapid transit facilities, such as BART, within the City limits.

#### Industries

There are no industries within the City limits that inherently produce high levels of noise that carry beyond the property line on a continuous or semi-continuous basis.

#### General

The usual city noises do exist. Occasionally, one can expect to hear the garbage trucks, emergency vehicles, screech of automobile brakes, construction noises, etc.





The City's water wells utilize submersible pumps that cannot be heard above ground. The sewage lift pumps are located in underground vaults. The storm drainage pump stations are quiet and isolated. The potable water booster pump stations do not produce high levels of continuous noise.

## II. GOALS

To reduce and/or maintain the noise levels in all areas of the City at acceptable levels.

## III. IMPLEMENTATION MEASURES

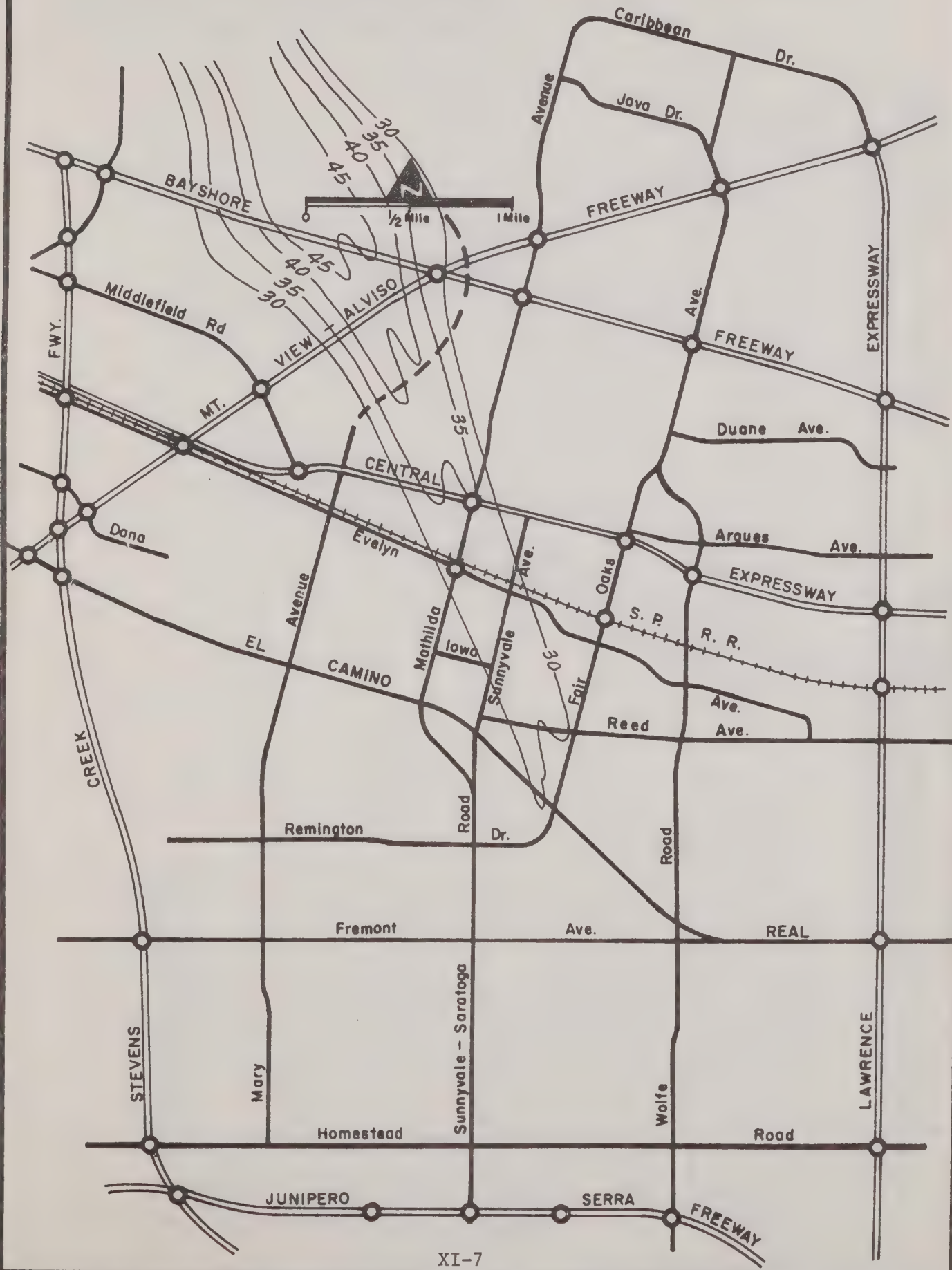
- a. Coordinate with the State Division of Highways and the County of Santa Clara to insure that when new freeways and expressways are constructed or extensively modified that adequate facilities will be provided to minimize the level of noise that carries to abutting areas.
- b. Coordinate with Moffett Field Naval Air Station concerning changes in flight patterns and other phases of the operation so that noise levels due to naval aircraft will not increase.
- c. Enforce operating standards in zoning ordinance and nuisance laws applying to noise. Update these standards to reflect current methodology.
- d. Enforce building code standards regarding noise transmission between residential units.
- e. In areas subject to noise levels higher than desired yet still tolerable, provide amelioration through buffers, orientation, construction and insulation techniques.
- f. Where noise levels are intolerable, prohibit dwellings.



# NOISE ELEMENT

## MOFFETT NAVAL AIR STATION

— 30 — 30 — NEF (NOISE EXPOSURE FORECAST)





# NOISE ELEMENT

## FREEWAYS, EXPRESSWAYS, AND RAILROADS

— F65 — F65 — dBA — Freeways  
 — E65 — F65 — dBA — Expressways  
 — R65 — F65 — dBA — Railroads







## Introduction

The making of a comprehensive plan is not an end in itself, and until effectuation takes place, the plan is of little or no value. The plan can be effectuated only through specifications and regulations which more precisely determine or guide public and private development.

## Review

The General Plan is the official policy guide for the development of Sunnyvale. Since membership on the Planning Commission and the City Council will change, and so may public policies and physical conditions, a plan that is not periodically re-examined soon will become obsolete. Any major proposal in conflict with the Plan calls for review of the reasons for the pertinent features of the Plan. If the new proposal is found to be superior, the Plan should be changed. In order to amend the Plan, at least one public hearing before the Planning Commission and the City Council, respectively, are required by the Uniform Planning and Zoning Code of the City of Sunnyvale. Regular review of the Plan is a good way to keep it current. At least once every five years, and possibly more often, if the community is growing rapidly, the Plan should be thoroughly restudied.

## Precise Zoning Plans

The precise zoning plan is the most important device for effectuating the land use section of the General Plan. The zoning districts map divides the community into zones or districts according to present and potential use of properties for the purpose of controlling and directing the use and development. It is concerned primarily with the use of land and buildings, the height and bulk of buildings, the proportion of a lot which buildings may cover, and the density of dwelling units of a given area.

The Uniform Planning and Zoning Code of the City of Sunnyvale should be kept up-to-date and amended, when necessary, to incorporate new techniques. Zone changes should be checked carefully against the General Plan. One of the relatively new approaches in zoning is the encouragement of variety and preservation of open space through the use of density zoning for large scale projects which permit a mixture of uses, variety of yard, height, lot size, type of open space and housing type.

## Subdivision Regulations

The Subdivision Chapter of the Sunnyvale Municipal Code sets forth procedures and requirements for dividing larger parcels of land into smaller parcels. The City Staff, Planning Commission and City Council review designs for the layout of subdivisions to assure proper integration of each subdivision with others for a logical overall pattern of streets and facilities. The Subdivision Chapter of the Sunnyvale Municipal Code should be amended, if necessary, as new techniques of land development such as cluster subdivisions are devised.

## Official Plan Lines

Official Plan Lines are precise plans which effectuate the circulation element of the General Plan. They indicate the intent of the City to locate new streets in certain areas or to widen existing streets. The lines are delineated on a map or



drawing, clearly and accurately describing the boundary of the planned street or the future boundary of an existing street. No new buildings are allowed to be constructed within the future right-of-way.

### Urban Renewal

The Federal Law provides three kinds of programs: conservation, rehabilitation and redevelopment. A conservation program consists primarily of steps to prevent a sound neighborhood from slipping toward blight. Rehabilitation consists of code enforcement, public improvements, use of liberalized F.H.A. loans for remodeling deteriorating structures, and removal of buildings that are beyond repair. Redevelopment, the most drastic step, consists of clearing the land of all or most of the structures and changing the use or the subdivision pattern if advisable. Federal cash grants make up two-thirds of the difference between the cost of planning the project and acquiring and clearing the land, and the amount received when the land is sold to a private builder for development in accord with the plan. The remaining one-third must be paid by the City, but may be in the form of streets, sewers, parks or other community facilities serving the project area. The redevelopment agency is responsible for seeing that all persons displaced by a project are relocated in homes of equal or superior quality at rents they can afford.

### Financial Considerations

#### Capital Improvements

In 1956 and 1961, municipal bond issues were approved for street improvements, for the acquisition and development of park sites, a civic center, corporation yard, storm and sanitary sewer systems and police and fire protection facilities. In addition to municipal bonds, there have been school and County bond issues which have provided for the acquisition and building of almost all planned elementary, junior and senior high school facilities in the Sunnyvale Planning Area and for major expressway projects in the same area.

During the period since 1956 the State has completed the Bayshore Freeway in the Planning Area and is now building the Stevens Creek Freeway and Junipero Serra Freeway, both of which are to be completed in this area within the next three years. In October, 1963, a bond issue was passed by the County providing for the acquisition and development of flood control channels throughout the Planning Area.

#### Taxes

Because of the great influx of industries in Sunnyvale, the City is able to establish a firm economic base resulting in a sound fiscal policy.



RESOLUTION NO. 204-72

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE  
ADOPTING AMENDMENTS AND ADDITIONS TO THE MASTER OR  
GENERAL PLAN FOR THE CITY OF SUNNYVALE

WHEREAS, the Department of Community Development and other city departments on March 2, 1972 submitted to the City Council certain proposed amendments to the Master or General Plan; and

WHEREAS, the proposed amendments to the Master or General Plan consisted of additions and revisions of the following elements: Land Use, Housing, Circulation, Scenic Highway, Conservation, Open Space, Safety, Seismic Safety, and Noise; and

WHEREAS, the Planning Commission held a public hearing pursuant to published notice on the 27th day of March, 1972 with additional continued hearings on April 10 and April 24, 1972; and

WHEREAS, the Planning Commission by Resolution No. 72-1 adopted at a special meeting on May 1, 1972, has recommended that the City Council adopt the amendments to such plan as submitted to the City Council on March 2, 1972 together with certain changes; and

WHEREAS, on May 16, 1972, the City Council of the City of Sunnyvale held a public hearing, notice of which was published in the manner provided in Resolution No. 192-72, concerning said Master or General Plan as required by the "Uniform Planning and Zoning Code of the City of Sunnyvale"; and

WHEREAS, the City Council of the City of Sunnyvale hereby finds and determines that the proposed Master or General Plan, as so changed and modified, conforms with and contains the





requirements provided for in the "Uniform Planning and Zoning Code of the City of Sunnyvale," and constitutes a suitable and logical plan for the physical development of the City of Sunnyvale;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES RESOLVE AS FOLLOWS:

SECTION 1. The Master or General Plan as submitted to the City Council on March 2, 1972, revised to embody the changes recommended for certain elements of such plan by Resolution No. 72-1 of the Planning Commission as set forth in the document entitled "Proposed General Plan Modifications May, 1972", is hereby adopted by the City Council. The revised Master or General Plan as so adopted is set forth in its entirety in the document entitled "1972 General Plan of the City of Sunnyvale", an endorsed copy of which shall be maintained in the offices of the City Clerk and the Department of Community Development.

SECTION 2. The Mayor and the City Clerk are authorized and directed to endorse the 1972 General Plan of the City of Sunnyvale to show that it has been adopted by the City Council.

SECTION 3. The City Clerk is directed to file a certified copy of the 1972 General Plan of the City of Sunnyvale with the Board of Supervisors and the Planning Commission of the County of Santa Clara and the planning agency of each city within the County of Santa Clara. The City Clerk is directed further to file a certified copy of such plan with the legislative body of each city the land of which may be included in such plan.

SECTION 4. In adopting the 1972 General Plan of the City of Sunnyvale the City Council has acted pursuant to its powers as



a Charter City as provided in Article IV of the Charter and as authorized by Section 5(a) of Article XI of the Constitution of the State of California. Further the City Council states that the 1972 General Plan of the City of Sunnyvale is intended to comply with any state law that may be held to apply to the general plans of charter cities.

PASSED AND ADOPTED by the City Council of the City of Sunnyvale at a regular meeting held on the 23rd day of May, 1972, by the following called vote:

AYES: Councilmen: Allen, Gunn, Hefferlin, Koreski, Logan and Albert

NOES: Councilmen: None

ABSENT: Councilmen: Shields

APPROVED:

Etta S. Albert  
Mayor

ATTEST:

JOHN E. DEVER, City Clerk

By

Carol Ann Butler  
Deputy City Clerk

(SEAL)



RESOLUTION NO. 72-1

RESOLUTION RECOMMENDING ADOPTION OF AMENDMENTS TO THE  
MASTER OR GENERAL PLAN FOR THE CITY OF SUNNYVALE

WHEREAS, the Legislature of the State of California has established certain requirements for Master or General Plans which are intended to apply to all cities and counties; and

WHEREAS, the Sunnyvale Department of Community Development and other city departments submitted to the City Council a series of amendments to the Master or General Plan on March 2, 1972 as a response to the new state requirements; and

WHEREAS, said amendments to the Master or General Plan consist of additions and revisions of the following elements: Land Use, Circulation, Scenic Highway, Conservation, Safety, Seismic Safety, and Noise; and

WHEREAS, notice of public hearing was published as provided in the "Uniform Planning and Zoning Code of the City of Sunnyvale"; and

WHEREAS, the Planning Commission held a public hearing on the 27th day of March, 1972 with additional continued hearings on April 10 and April 24, 1972;

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Planning Commission of the City of Sunnyvale hereby recommends to the City Council of the City of Sunnyvale that the amendments to the Master or General Plan for the City of Sunnyvale as submitted to the City Council on March 2, 1972 pursuant to the "Uniform Planning and Zoning Code of the City of Sunnyvale" be adopted with the following changes:

a. Land Use

(1) Insert statement reserving Bay Lands for non-intensive conservation uses.

(2) Insert omitted quantity "4076" on Page II-3, line 3, referring to industrial lands.





b. Housing

(1) In Preamble, state need for continued interjurisdictional cooperation.

(2) Under Goals, stress need to make provision for prestige housing as well as for disadvantaged.

c. Circulation

Strengthen and emphasize need for public transit under both goals and implementation measures.

d. Open Space

Add goal of preservation of stream beds and bay lands as substantial open space.

e. Noise

Emphasize soundproofing between multiple family uses under implementation.

2. Subsequent to the adoption of the Plan, further studies should be carried on. First, those of an editorial nature directed toward the unification of style, the elimination of repetition, and the simplification of the structure of the Plan. Second, those of a substantive nature directed toward the examination of the City's development policy. These studies should include:

- a. Add an introductory statement setting forth the relationship of the City of Sunnyvale to the region and sub-region within which it exists.
- b. Editing to unify style and format.
- c. Restructuring to eliminate repetition and to bring together related subject matters, possibly dividing contents of the Scenic Highway Element between Circulation and Community Appearance, and combining Open Space with Conservation, and Safety with Seismic Safety.



- d. Expanding the Objectives Chapter to include goals and objectives stated in added Elements.
- e. Re-examining neighborhood boundaries.
- f. Consider additional Land Use Studies designed to evaluate changes suggested by Stanford Research Institute in the CRP.
- g. Restore Appendix stating "Holding Capacity" between neighborhood when neighborhood boundaries have been readjusted and when current census data is available to allow analysis.
- h. Re-examination of City's responsibility for relocation housing both as to location and as to families displaced through non-public action.
- i. Establish quantitative target for equitable share of subsidized housing.
- j. Expand and strengthen Effectuation Chapter to include implementation measures embodied in the added Elements and to reflect City's current PPBS budgeting techniques.

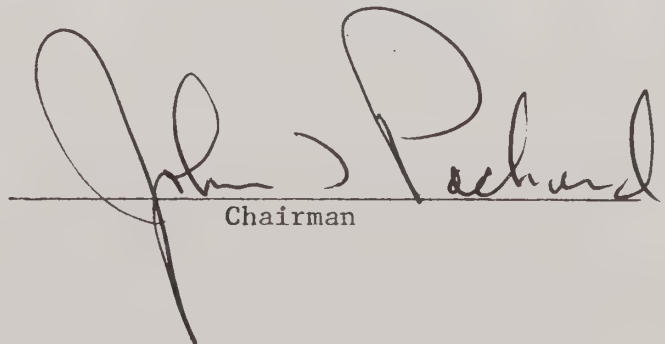
3. The Chairman and Secretary of the Planning Commission of the City of Sunnyvale, respectively, be and they hereby are directed to cause their respective signatures to be affixed and recorded on this resolution and the Secretary is hereby directed to transmit a certified copy of this resolution to the City Council of the City of Sunnyvale.

PASSED AND ADOPTED this 1st day of May, 1972, by the following called vote:

AYES: Commissioners: Packard, Cude, Kelley, Flohr, Kelsey, Powers

NOES: None

ABSENT: Commissioners: Fink

  
Chairman

ATTEST:

  
Secretary



RESOLUTION NO. 110-73

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE  
ADOPTING AMENDMENTS TO THE 1972 GENERAL PLAN OF THE  
CITY OF SUNNYVALE

WHEREAS, the Department of Community Development has proposed amendments to the 1972 General Plan of the City of Sunnyvale, which amendments consist of a change in the boundary of the planning area pertaining to the unincorporated portion of the Moffett Naval Air Station and the expansion of "park" designated areas; and

WHEREAS, the Planning Commission held a public hearing on the changes in the planning area boundary on January 8, 1973 and on the expansion of the area designated "park" on November 13, 1972 continued to January 8, 1973; and

WHEREAS, the Planning Commission by its Resolution No. 73-1 has recommended that the City Council adopt said amendments as proposed and as hereinafter set forth; and

WHEREAS, the City Council having held a public hearing concerning the proposed amendments on January 9, 1973 pursuant to published notice, the City Council hereby finds and determines that the proposed amendments conform with and contain the requirements provided for in the "Uniform Planning and Zoning Code of the City of Sunnyvale", constitute suitable and logical changes in the plan for the physical development of the City of Sunnyvale, and are in the public interest;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE  
DOES RESOLVE AS FOLLOWS:

SECTION 1. The 1972 General Plan of the City of Sunnyvale, and more particularly the summary map, the planning units map and the open space recreation element contained therein, hereby is amended by





changing the boundary of the planning area and by expanding the area designated as "park" to conform to the new areas shown on the exhibit attached hereto.

SECTION 2. The Mayor and the City Clerk are authorized and directed to endorse said amendments to the 1972 General Plan of the City of Sunnyvale to show that the same have been adopted by the City Council.

SECTION 3. The City Clerk is directed to file a certified copy of said amendments to the 1972 General Plan of the City of Sunnyvale with the Board of Supervisors and the Planning Commission of the County of Santa Clara and the planning agency of each city within the County of Santa Clara. The City Clerk is directed further to file a certified copy of such amendments with the legislative body of each city the land of which may be included in such plan. The filing of a certified copy of this resolution will constitute compliance with this section.

PASSED AND ADOPTED by the City Council of the City of Sunnyvale at a regular meeting held on the 9th day of January, 1973, by the following called vote:

AYES: Councilmen Allen, Gunn, Hefferlin, Koreski, Logan, Shields and Albert

NOES: Councilmen: None

ABSENT: Councilmen: None

APPROVED

Etta S. Albert  
Mayor

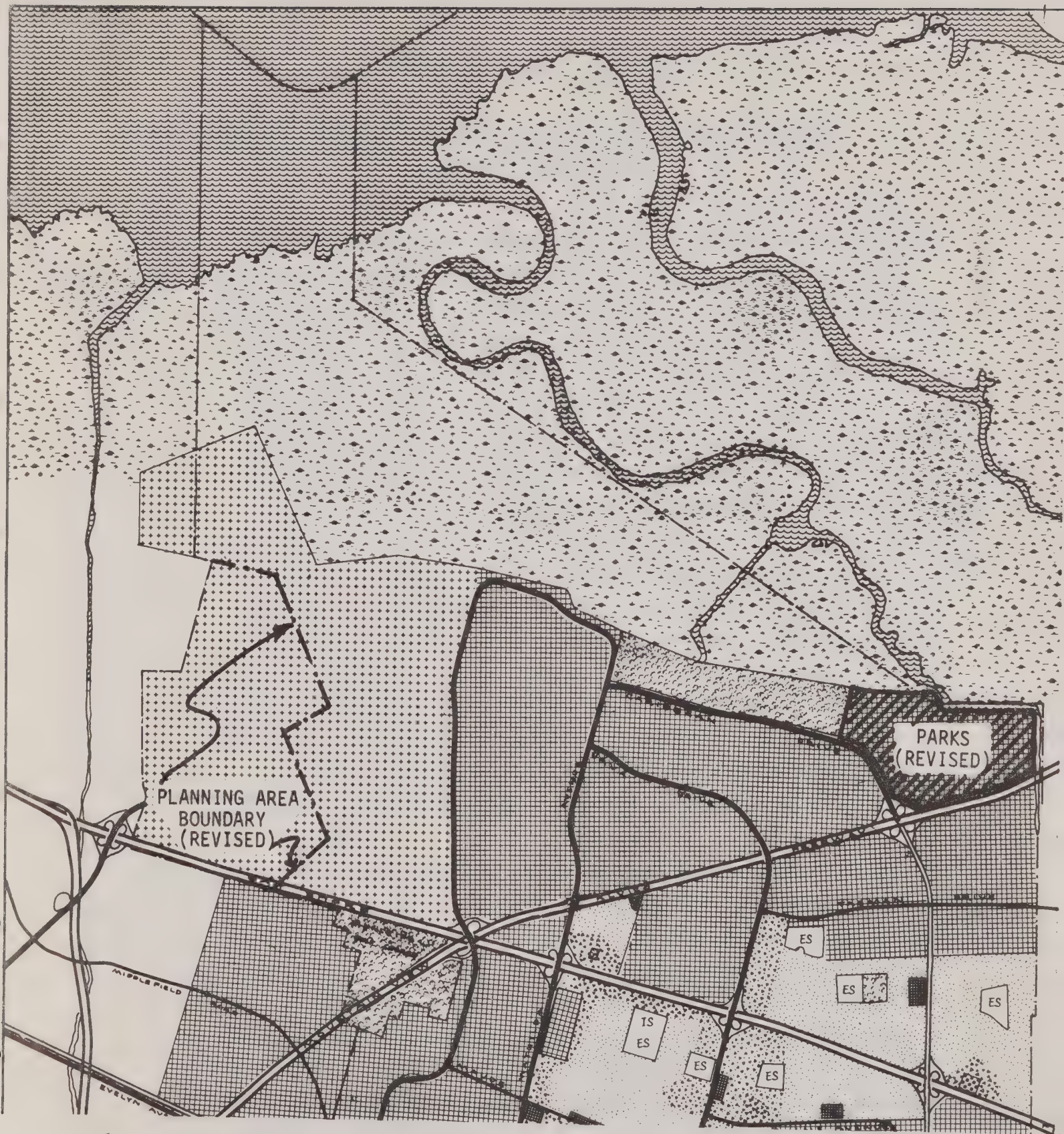
ATTEST:

JOHN E. DEVER, City Clerk

By Coral Ann Butler  
Deputy City Clerk







Adopted by Resolution 110-73 of City Council

Dated: January 9, 1973

*Etta S. Albert*  
Mayor

ATTEST:

*[Signature]*  
City Clerk

AMENDMENT #1  
TO  
1972 GENERAL PLAN  
CITY OF SUNNYVALE  
ADOPTED JAN. 9, 1973





RESOLUTION NO. 102-75

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE  
ADOPTING AMENDMENTS TO THE 1972 GENERAL PLAN OF THE  
CITY OF SUNNYVALE

WHEREAS, the Department of Community Development has proposed amendments to the 1972 General Plan of the City of Sunnyvale, as heretofore amended, which proposed amendments are set forth in the Report of the Planning Officer dated December 9, 1974; and

WHEREAS, the Planning Commission held a public hearing on the proposed amendments on December 9, 1974; and

WHEREAS, the Planning Commission by its report and recommendation set forth in the minutes of the meeting of December 9, 1974 recommended that the City Council adopt said amendments as modified and as hereinafter set forth; and

WHEREAS, the City Council having held a public hearing concerning the proposed amendments on January 7, 1975 pursuant to published notice, the City Council hereby finds and determines that the proposed amendments conform with and contain the requirements provided for in the "Uniform Planning and Zoning Code of the City of Sunnyvale," constitute suitable and logical changes in the plan for the physical development of the City of Sunnyvale, and are in the public interest;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE  
DOES RESOLVE AS FOLLOWS:

SECTION 1. The 1972 General Plan of the City of Sunnyvale, and more particularly the summary map, the open space recreation element map and the text of the land use element, hereby is amended as follows:

1. The summary map and the Open Space Recreation Element Map contained within the Sunnyvale General Plan are modified:
  - a. To replace the future school site at Hyde Park with a park site;
  - b. To replace the future school site at Cumulus with low density residence;
  - c. To replace high density residence with a park site at the Sunken Gardens Golf Course.





2. The summary map contained within the Sunnyvale General Plan is modified:
  - a. To replace medium density residence with low density residence at Fair Oaks Avenue on both sides of Duane;
  - b. To replace medium density residence with industry northeast of the interchange of the Bayshore Freeway and Fair Oaks Avenue.
3. The text of the land use element is modified by adding to the paragraph appearing at the bottom of page II-2 and at the top of page II-3 of the General Plan, a new sentence as indicated by underlining below, so that such paragraph will read as follows:

"A basic policy of the Plan is the reservation of sufficient, well-located land, served by utilities and roads, protected by zoning and building regulations, to allow a maximum variety of sites for industrial location and expansion. Designation of future areas for industry does not hamper existing agricultural uses, but does prevent the intrusion of residential development. Buffer areas should be provided between industrial and non-compatible uses such as residential. However, where established residential development is mapped for ultimate industrial use, residential zoning can provide environmental protection until the appropriate time for the change in use. Site planning should provide landscaping for buildings and parking areas. There should be ample off-street parking and loading. Nuisances, such as odor and noise, are controlled by zoning. The Plan provides approximately 4076 gross acres for industrial uses."

SECTION 2. The Mayor and the City Clerk are authorized and directed to endorse said amendments to the 1972 General Plan of the City of Sunnyvale to show that the same have been adopted by the City Council.

SECTION 3. The City Clerk is directed to file a certified copy of said amendments to the 1972 General Plan of the City of Sunnyvale with the Board of Supervisors and the Planning Commission of the County of Santa Clara and the planning agency of each city within the County of Santa Clara. The City Clerk is directed further to file a certified copy of such amendments with the legislative body of each city the land of which may be included in such plan. The



filing of a certified copy of this resolution will constitute compliance with this section.

PASSED AND ADOPTED by the City Council of the City of Sunnyvale at a regular meeting held on the 7th day of January, 1975, by the following called vote:

AYES: Albert, Gunn, Hefferlin, Koreski, Logan, Shields and Allen

NOES: None

ABSENT: None

ATTEST:

JOHN E. DEVER, City Clerk

by *Carol Ann Butler*  
Deputy City Clerk

(SEAL)

APPROVED:

*Stanley C. Allen*  
Mayor



RESOLUTION NO. 259-75

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE  
ADOPTING AMENDMENTS TO THE 1972 GENERAL PLAN OF THE  
CITY OF SUNNYVALE

WHEREAS, the Department of Community Development has proposed amendments to the 1972 General Plan of the City of Sunnyvale as heretofore amended, which proposed amendments are set forth in the report of the Planning Officer to the Planning Commission dated July 28, 1975; and

WHEREAS, the Planning Commission, after notice duly given held a public hearing on the proposed amendments on July 28, 1975, after which public hearing the Planning Commission recommended that the City Council adopt the amendments as proposed, as set forth in the minutes of the Planning Commission of July 28, 1975; and

WHEREAS, the City Council having held a public hearing on said proposed amendments pursuant to published notice the City Council hereby finds and determines that the proposed amendments conform with and contain the requirements provided for in the "Uniform Planning and Zoning Code of the City of Sunnyvale," constitute suitable and logical changes in the plan for the physical development of the City of Sunnyvale, and are in the public interest;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES RESOLVE AS FOLLOWS:

SECTION 1. The 1972 General Plan of the City of Sunnyvale and more particularly the Summary Map and the Open Space Recreation Element Map are hereby amended as follows:





a. to replace the future school site at Pendleton Avenue and the Mary Avenue extension with low density residence.

b. to replace low density residence with a park site at the Serra Park expansion on Hollenbeck Avenue.

SECTION 2. The Mayor and the City Clerk are authorized and directed to endorse said amendments to the 1972 General Plan of the City of Sunnyvale and to show that the same have been adopted by the City Council.

SECTION 3. The City Clerk is directed to file a certified copy of said amendments to the 1972 General Plan of the City of Sunnyvale with the Board of Supervisors and the Planning Commission of the County of Santa Clara and the planning agency of each city within the County of Santa Clara. The City Clerk is directed further to file a certified copy of said amendments with the legislative body of each city, the land of which may be included in such plan. The filing of a certified copy of this resolution will constitute compliance with this section.

PASSED AND ADOPTED by the City Council of the City of Sunnyvale at a regular meeting held on the 5th day of August, 1975, by the following called vote:

AYES: Albert, Allen, Gunn, Logan, Stone and Koreski

NOES: None

ABSENT: None

ABSTAIN: Morris

ATTEST:

JOHN E. DEVER, City Clerk

By Care Ann Butler  
Deputy City Clerk

APPROVED:

Ronald E. Koreski  
Mayor

(SEAL)



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